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JPRS Report

Epidemiology



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Epidemiology

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CONTENTS

8 June 1988

AFRICA (SUB-SAHARA)

CAPE VERDE

AIDS Kills Eight in Cabo Delgado <i>[Maputo NOTICIAS, 19 Mar 88]</i>	1
--	---

MOZAMBIQUE

AIDS Prevention Program Launched by Health Ministry <i>[Maputo NOTICIAS, 17 Mar 88]</i>	1
AIDS Awareness Campaign Launched in Gaza <i>[Maputo NOTICIAS, 29 Mar 88]</i>	2
Donors Conference in Maputo Discusses Financing of AIDS Program <i>[Maputo NOTICIAS, 20 Apr 88]</i>	2
Results of Vaccination Program <i>[Maputo NOTICIAS, 31 Mar 88]</i>	3

SOUTH AFRICA

Government's AIDS Campaign Said To Be Succeeding	4
Public Awareness Increase <i>[Johannesburg THE CITIZEN, 2 May 88]</i>	4
Chamber Considers New AIDS Law <i>[Johannesburg THE CITIZEN, 2 May 88]</i>	4
Education Department Proposes AIDS as Compulsory School Subject <i>[Johannesburg THE CITIZEN, 2 May 88]</i>	4
Sanlam Medical Officer Figures Cost of AIDS Treatment <i>[Dianna Games; Johannesburg BUSINESS DAY, 2 May 88]</i>	5
11 AIDS Carriers in Bophuthatswana; 2 Dead <i>[Johannesburg SAPA, 14 Apr 88]</i>	6

UGANDA

NRA Officers Receive AIDS Education <i>[Kampala NEW VISION, 19 Apr 88]</i>	6
AIDS Research Fund Launched <i>[Robinah Basalirwa; Kampala NEW VISION, 14 Apr 88]</i>	6

EAST ASIA

HONG KONG

New AIDS Victim; Blood Contamination Figures Given <i>[Mary Ann Benitez; Hong Kong SOUTH CHINA MORNING POST, 27 Apr 88]</i>	7
Authorities Fear Measles Outbreak, Push Immunization	7
'Emergency' Campaign <i>[Mary Ann Benitez; Hong Kong SOUTH CHINA MORNING POST, 23 Apr 88]</i>	7
Dispute Over Vaccination Levels <i>[Mary Ann Benitez; Hong Kong SOUTH CHINA MORNING POST, 28 Apr 88]</i>	8

VIETNAM

Spring Rice Crop Infestations <i>[Duy Nghi; Hanoi KHOA HOC VA DOI SONG, 1 Apr 88]</i>	8
---	---

LATIN AMERICA

ANTIGUA AND BARBUDA

10 Cases of AIDS Found, Half in Last 6 Months <i>[BARBADOS ADVOCATE, 27 Apr 88]</i>	10
---	----

BAHAMAS

- Minister of Health Discusses Anti-AIDS Measures [Nassau *THE TRIBUNE*, 25 Apr 88] 10

BARBADOS

- Latest Figures Released on AIDS Mortality Rate
[Bridgetown *BARBADOS ADVOCATE*, 22 Apr 88] 11

GRENADA

- AIDS Concerns Voiced; 11 Deaths Reported [*DAILY EXPRESS*, 28 Apr 88] 11

TRINIDAD AND TOBAGO

- Caribbean Health Center Reports on AIDS Situation
[Kingston *THE SUNDAY GLEANER*, 27 Mar 88] 11

NEAR EAST & SOUTH ASIA

EGYPT

- Policies Changed, Concerns Voiced Over AIDS in Alexandria
[Amir 'Id; Cairo *AL-SHA'B*, 3 May 88] 13
- Attempts To Stop Spread of Meningitis
[Ahmad Nasr al-Din, Ahdaf al-Bandari, Muwaffaq Abu-al-nil; Cairo *AL-AHRAM AL-DUWALI*, 4 May 88] 14
- Border Authorities Take Steps Against Malaria [Cairo *AL-AHRAM AL-DUWALI*, 4 May 88] 15
- Locust Invasion Begins [Cairo *AL-AHRAM AL-DUWALI*, 4 May 88] 17

ISRAEL

- Israeli Firm Debuts AIDS Rapid Detection Kit [Amnon Atad; Tel Aviv *DAVAR*, 19 May 88] 18

MOROCCO

- Rice Growing Threatened by Disease, Pests
[Mustapha Soulaymani; Rabat *L'OPINION*, 20 Apr 88] 18
- Progress in Anti-Locust Campaign Reviewed 19
- Cool Weather Stems Locust Movement [Mustapha Soulayman; Rabat *L'OPINION*] 19
- Long-term Eradication Effort Required [Djamila Chekrouni; Rabat *L'OPINION*, 3 Apr 88] .. 19
- Locust Eradication Statistics [Rabat *L'OPINION*, 26 Mar 88] 20
- Locust Eradication Statistics as of 16 April [Casablanca *MAROC SOIR*, 19 Apr 88] 20

TUNISIA

- Eighty-six Test Positive for HIV Virus [Tunis *LA PRESSE*, 29 Mar 88] 20
- National Vaccination Day Shows Promising Results [Tunis *LA PRESSE*, 31 Mar 88] 20
- Battle Under Way Against Nationwide Locust Infestation 21
- Control Mechanisms Set Up [Moncef Belkadi; Tunis *LE RENOUVEAU*, 22 Mar 88] 21
- Herders Warned About Insecticides [Tunis *LA PRESSE*, 19 Mar 88] 22
- Maghreb Officials Meet [Tunis *LA PRESSE*, 23 Mar 88] 22
- New Swarms Detected [Fatma Zaghouani; Tunis *LA PRESSE*, 23 Mar 88] 23
- FAO Official Speaks [K.B.; Tunis *LA PRESSE*, 23 Mar 88] 23
- Situation in Gafsa Reported [F.M.; Tunis *LA PRESSE*, 31 Mar 88] 24
- Locusts Return to Kairouan [F.Z.; Tunis *LA PRESSE*, 31 Mar 88] 26
- Sfax Situation Better [Rafik Ben Zina; 31 Mar 88] 26
- Swarms Moving North [K.B.; Tunis *LA PRESSE*, 2 Apr 88] 26
- Invasion Continues, Reaches Ariana [Tunis *LE TEMPS*, 5 Apr 88] 27

UNITED ARAB EMIRATES

Major Increase in Cases of Small-Pox and Meningitis [Dubayy GULF NEWS, 24 Apr 88] 28

SOVIET UNION

Treatment of AIDS Patients in USSR

[I. Krasnopol'skaya; Moscow MOSKOVSKAYA PRAVDA, 21 Feb 88] 29

AIDS Situation in Latvia [I. Geyman; Riga SOVETSKAYA LATVIYA, 6 Mar 88] 30

AIDS Testing Center in Odessa [I. S. Fuchizhi; Kiev PRAVDA UKRAINY, 6 Mar 88] 32

New Production Line for Disposable Needles

[R. Arifdzhanov; Moscow KOMSOMOLSKAYA PRAVDA, 15 Mar 88] 32

WEST EUROPE

BELGIUM

AIDS Statistics, Risk Groups Pointed Out

[Eric de Bellefroid; Brussels LA LIBRE BELGIQUE, 18 Mar 88] 33

DENMARK

Aids Victims Infecting Others May Be Charged With Murder

[Carl Otto Brix; Copenhagen BERLINGSKE TIDENDE, 8 Apr 88] 33

Condom Sales Actually Decline Despite AIDS Campaign

[Kaj Skaaning; Copenhagen BERLINGSKE TIDENDE, 3 Apr 88] 34

Tuberculosis Spreading in Christiania 'Free City'

[Copenhagen BERLINGSKE TIDENDE, 9 Apr 88] 34

Fence Erected on Border With FRG To Halt Cattle Disease

[Poul Bogh; Copenhagen BERLINGSKE TIDENDE, 31 Mar 88] 35

FINLAND

Funding Cut To Force Reduction in Number of AIDS Tests

Rabies Expert Views Situation in Country, Across USSR Border

FRANCE

Fewer Samples of Donated Blood AIDS Positive in 1987 [Paris LE FIGARO, 2 May 88] 36

GREECE

Epidemic Proportions AIDS Spread Seen Unlikely [Athens I KATHIMERINI, 27-28 Mar 88] 37

TURKEY

9-Year-Old AIDS Victim Diagnosed [Selma Tukul; Istanbul HURRIYET, 18 Mar 88] 38

CAPE VERDE

AIDS Kills Eight in Cabo Delgado

54000118c Maputo NOTICIAS in Portuguese
19 Mar 88 p 5

[Text] AIDS has already victimized 8 persons in Cape Verde and an additional 16 are presently in the hospital with the disease, according to a statement made Thursday by Health Minister Irineu Gomes as quoted by LUSA.

Of the patients interned, 11 are men and 5 are women, the minister reported.

Irineu Gomes also stated that currently 66 otherwise healthy persons are carriers of the virus, 4 being infected with the HIV-1, more common in the West, and 62 with the HIV-2, characteristic of western Africa.

Of the 66 individuals infected with AIDS but not yet revealing symptoms of the disease, 52 are men and 18 women, all between the ages of 28 and 48. "It has not been possible to survey younger people," he said.

Since the end of last year, Cape Verde has had its own laboratory for the detection of the viruses HIV-1 and HIV-2 and analyses have been made of the condition of about 1.0 percent of the population, estimated at 300,000 people.

08568

MOZAMBIQUE

AIDS Prevention Program Launched by Health Ministry

54000131d Maputo NOTICIAS in Portuguese
17 Mar 88 p 2

[Text] The Mozambican government yesterday formally announced the onset, in the first half of this year, of a series of health actions aimed at resisting and preventing the propagation of AIDS. The prevalence of AIDS in this country is estimated at 3 percent of the population; that is, 12,000 to 52,000 Mozambicans infected by HIV, the scientific designation for the disease. Of this approximate figure for the number of citizens suspected of being carriers (serum positives), the Mozambican authorities by 31 January of this year had diagnosed six cases of the disease, one of them a foreigner. Of the six, two died, and the other four are at differing stages of the development of the illness.

This announcement was made yesterday in Maputo by the minister of health, Dr Fernando Vaz, at a press conference for the national press. He said that Mozambique has adopted a National Prevention and Control

Program for AIDS, to be executed over a period of 3 years, with the involvement of all sectors in making our efforts to reduce the propagation of the worst epidemic of the century fruitful.

Fernando Vaz made it known that recently our country carried out a preliminary investigation to determine the extent of the illness, and concluded that the existence of individuals in the Mozambican population that are infected with the virus that causes the illness has already been proven, requiring that, as elsewhere in the world, the government begin to do something to reduce the dire consequences that would result from the propagation of the disease.

The minister of health also revealed that the preliminary results of a national investigation that is about to begin show that the prevalence of infected citizens, that is, those already affected by the virus, among different population groups (donors of blood and refugee populations) in the country's main cities varies between 1 and 3 percent.

This percentage figure amounts to an estimated 12 million to 52 million Mozambicans who may be infected, and, according to official statistics, this means that, in the next 5 years, between 1,200 and 16,000 infected citizens could develop the disorder.

According to Fernando Vaz, these calculations demonstrate that AIDS is already a health problem in Mozambique which will aggravate other problems the country faces as a result of the war of aggression that has victimized the country, and of the natural calamities and banditry that continue to cause immeasurable suffering for our people.

During the press conference, the minister of health announced that Mozambique has adopted the London Declaration regarding the prevention of AIDS, which recommends that the governments and peoples of the entire world take urgent measures to implement WHO strategy against the illness, and to do everything possible to see to it that such measures are taken.

The London Declaration, adopted by 148 countries, contains 14 points, the sixth of which clarifies the need for AIDS prevention programs to protect human rights and the dignity of individuals, and to fight discrimination and stigmatization of individuals infected by HIV and of those having AIDS.

In this context, the minister of health reiterated that Mozambique rejects the requirement of registration of foreigners entering the country, saying: "Our position with regard to serum positive individuals is to adopt the measures that are universally accepted; we have respect for human dignity."

According to the explanations given, the basic objectives of the National Program for the Prevention and Control of AIDS are to prevent the transmission of HIV, to reduce morbidity and mortality associated with infection by the virus, and to educate the individual "to adopt safe sexual behavior, which includes conjugal fidelity or the use of condoms during casual sexual contacts."

The health authorities of our country stress that if every Mozambican citizen realizes that he has a role to play in the fight against AIDS, and that he should adopt such measures (safe sexual behavior and the use of condoms in casual contacts), much suffering can be avoided and great success can be achieved.

With regard to the efforts aimed at controlling the spread of the illness, the minister of health said that by the end of August all blood banks at the provincial hospitals will be able to carry out the ELISA exam, the first test to determine whether the individual is a carrier of the virus.

12857

AIDS Awareness Campaign Launched in Gaza
54000131a Maputo NOTICIAS in Portuguese
29 March 88 p 3

[Text] The AIDS education campaigns for all of the districts of Gaza Province, and particularly for the city of Xai-Xai, were launched during the second week of March.

At the same time, a team of Swiss physicians in Gaza promoted a seminar dedicated to the study of, and preventive measures for, the illness. Later, the Directorate of Preventive Medicine Services appointed 14 monitors who organize explanatory meetings regarding precautions to be observed in the prevention of the epidemic for workers and residents of the various sections of the provincial capital of Gaza.

The head of Preventive Medicine for Gaza, Eduardo Naiene, said in an interview with NOTICIAS that in Gaza Province no case of the illness has yet been detected. However, this does not mean that there are no citizens there who are carriers of the virus.

In the various districts of this region of the country, educational campaigns about AIDS are being prepared by the local health centers, based upon the information provided during the seminars on the subject administered by the Swiss physicians.

Eduardo Naiene added that some preventive measures against AIDS have already been taken in Xai-Xai. "We are freely selling condoms in the local pharmacies, and we have advised the local population to use them during occasional sexual contacts."

Our source explained that one of the ways to avoid the disease is to have greater fidelity among married people.

He also pointed out that the local medicine man, in administering certain kinds of cures, uses the same blade for everyone. According to Naiene, "This could be a vehicle for the transmission of AIDS." He applauded the local interest that has been shown in meetings that are currently being held at work sites and in homes, as well as in schools.

12857

Donors Conference in Maputo Discusses Financing of AIDS Program
54000131b Maputo NOTICIAS in Portuguese
20 Apr 88 p 1

[Text] Representatives from 31 countries, from special agencies of the UN, and from governmental and nongovernmental organizations have been meeting since yesterday in Maputo, all of them participants in a 2-day conference held for purposes of reaching an agreement on support in the amount of \$7 million for the triennial Program for Prevention and Control of AIDS which runs from the end of last year to 1991.

Our country's minister of health, Dr Fernando Vaz, who is head of the conference, said in his opening remarks that the Mozambican government does not have the economic, financial or technical wherewithal to contain the spread of the illness, and explained that the Maputo conference is aimed at the mobilization of the necessary international support needed to help the country to take preventive action against the disease.

He added that this most feared disease of our century, AIDS, has overtaken the various economic and social problems that Mozambique faces as a result of the war of aggression, and puts us at a crossroads where the alternative courses of action are very few. Fernando Vaz characterized the AIDS situation, along with other problems the country suffers, saying, "The human and financial resources, and especially the human resources, that we need in order to fight the illness and avoid it are enormous, and could certainly put our normal hygiene programs at risk."

He warned that the available data on the propagation of AIDS show that, in the next 5-10 years, Mozambique will find itself in a difficult situation, since there is presently a growing percentage of carriers of the HIV virus: "The progression is geometric, and effective preventive measures must be taken."

With this in mind, the chief health officer said that the Party and the Mozambican government are aware of the tragedy that this illness can cause, and that for this reason they decided to give AIDS combat the highest priority through the establishment of a national program. Fernando Vaz said that the prevalence of AIDS varies between 1 and 3 percent. He also said that that

number is on the increase, and that 9 new cases had been diagnosed by 31 March, with 6 deaths. One of the victims was a 7-month-old child.

12857

Results of Vaccination Program

54000131c Maputo NOTICIAS in Portuguese
31 Mar 88 p 2

[Text] The existence in Maputo of citizens who are influential and willing to devote more effort to the health of their counterparts, understanding the great humanitarian, political and economic significance of health activities, and giving of their time to fraternal service will be a factor that could give a push to preventive health action as part of "Good Health for All by the Year 2000." This optimism was expressed by Dr Oscar Monteiro, director of the Center for Prophylaxis and Medical Examinations, when he recently presented the results achieved last year by the At-Large Vaccination Program. The Program reached its target of 90 percent for vaccination against the epidemics that annually victimized a high proportion of the population.

A greater mobilization effort among the population than last year's was needed to achieve results that were about the same. This was due to the fact that fewer people came to the health units because of the country's new health policy which, as a part of the Program of Economic Rehabilitation, led to an increase in the price of medications and doctors' visits.

According to the report, it was in that respect that the mobilizing force and influence of these citizens made itself felt and had allowed the program to achieve what success it had.

"The new prices introduced last year in health care had a considerable and immediate impact on the vaccination program, and on maternity and child health care programs, because the populace stayed away; they had difficulty contacting the health agents because of confusion and lack of clarification."

Nevertheless, in general there were excellent results achieved in the tuberculosis, measles, and polio inoculation programs, especially for children under 11 months old, 90 percent of whom were inoculated. In the case of measles, which was the primary cause of infant deaths, the figure was 99 percent.

Vaccination against tetanus was aimed chiefly at the school population and had equally good results, in spite of the weak collaboration of school authorities. Workers and pregnant women were also vaccinated. To dramatize the results of the effort: Tetanus was the major cause of death in Mozambique during the 1970's; last year only 7 cases were registered in Maputo.

Also, according to Dr Oscar Monteiro, there were no cases of diphtheria, whooping cough or polio, and few cases of diarrhea.

The report indicates that, during the period, care was provided for 54,881 pregnant women, and 138,057 children under 4 years of age; and prenatal consultations totalled 28,658. The infant mortality rate was reduced from 108 per thousand to 58 per thousand during the 1982-1987 period.

The document does not refer in statistical terms to malaria, but does describe the creation of teams that are about to carry out extermination activities in several boroughs of the city.

With regard to tuberculosis, there were 2,959 new cases and 44 deaths. As for leprosy, the report mentions 26 new cases and 3 deaths.

It adds that, in a campaign for healthy vision carried out with 25,466 school age children, 357 were found to have problems of reduced visual acuity, strabismus or trachoma. The study also included 1,400 preschool children, where 225 cases of ocular pathology were registered, predominantly conjunctivitis, trachoma, chalaria and strabismus.

In her appraisal of the results achieved with the infant population, Mrs Marta Maura, a representative of UNICEF, said, "It's not enough that they are born and don't die. The study should also clarify the quality of the children's survival, and the healthiness with which they are born."

She also pointed to the fact that the study shows that measles is presently more frequent in the child population above 5 years of age, and added that investigations already completed show that people are collaborating in health programs because of mobilization efforts and not because of educational assimilation, which provides no guarantee that the results achieved will be lasting.

With respect to this, Jorge Rebelo, secretary of the Central Committee for Ideological Effort, said that, if true, it is due to the fact that there has not yet been created a structural mechanism because of the conditions of war we have, and that the party and the government must concentrate their efforts.

Commenting on the results achieved by the vaccination campaign, Jorge Rebelo said that the fruits of the government health policy must be seen as remarkable by those who follow the country's evolution from the outside, since they reflect a level of organization and social assistance that are in contrast with the war conditions under which we live.

He added that the results should be viewed against the backdrop of the entire country, with its approximately 14 million inhabitants and an infant mortality rate of 375 per thousand, which means that the health situation in the country is stable.

He was appreciative of the work of the UNICEF representative in our country, and said that the concerns of that body are the same as those of the Mozambican government with regard to children who have been subjected to terrorism, the results of which will be of long duration.

"To stop is to die," he said, exhorting the population to contribute to the promotion of community health for everyone's benefit.

12857

SOUTH AFRICA

Government's AIDS Campaign Said To Be Succeeding

Public Awareness Increase

54000132a Johannesburg *THE CITIZEN* in English
2 May 88 p 8

[Text] The government-funded Aids awareness campaign in the mass media had resulted in a "substantial" increase in public awareness of the disease, but further education was needed, an international Aids conference being held in Sandton heard yesterday.

The campaign had resulted in many people realising their knowledge of Aids was incomplete, Mr Tim Bester, vice chairman of an advertising company that worked on the government media campaign, told the conference.

Quoting research done before and after the first phase of the campaign, Mr Bester said awareness of Aids had increased by 21 percent among Black people. He added Aids was now perceived as the most serious disease facing the Black community, overtaking tuberculosis.

Research also confirmed Aids was perceived to be the most serious disease among Whites.

The research was done by Market Research Africa (MRA) on behalf of the McCann group. Mr Bester said the findings were still being studied.

But preliminary analysis indicated "further education is needed to shift deeply entrenched beliefs and attitudes."

"There also appears to be real need among the communities for more information about the disease."

The research quoted by Mr Bester indicated 75 percent of Black people polled were aware of Aids as opposed to 96 percent after the first phase of the campaign.

Forty three percent of Blacks considered Aids the most serious disease before the start of the campaign, and this figure jumped to 65 percent after the first phase. The figures for Whites were 73 percent and 77 percent.

In the category "considered threat to nation," 92 percent of Whites thought this so before the campaign and 94 percent after the first phase. The figures for Black people showed an increase from 66 percent to 84 percent.

The campaign, utilising television, radio and newspaper, was launched on 25 January by the Department of National Health and Population Development. It was aimed at creating an awareness of Aids, detailing its causes and outlining means of prevention.

The strategy was designed to address "high risk behaviour rather than high risk groups," according to Mr Bester.—Sapa.

Chamber Considers New AIDS Law

54000132a Johannesburg *THE CITIZEN* in English
2 May 88 p 8

[Text] The Chamber of Mines is considering recent legislation that foreign miners carrying the Aids virus must be repatriated.

Mr Johan Liebenberg, industrial relations spokesman for the chamber, addressing yesterday's national Aids congress in Sandton on Aids in the Workplace, said it was previous chamber policy to continue employing HIV-positive migrant labourers, but to subject them to intensive education programmes to ease fear and hysteria.

"However, public opinion has shifted and there have been amendments to legislation demanding the immediate repatriation of HIV-positive migrant labourers.

"This has caused the chamber to review its policy regarding the Aids issue, which will be made public in the next month," Mr Liebenberg said.

Education Department Proposes AIDS as Compulsory School Subject

54000132a Johannesburg *THE CITIZEN* in English
2 May 88 p 8

[Text] Representations have been made to the Department of Health and Population Development to institute Aids as part of a compulsory school examination subject.

Speaking at the last day of a 3-day National Aids Congress in Sandton yesterday, Mr C D Cilliers, the head of Stellenbosch University's Education department, said that the teaching fraternity had proposed that Aids be addressed in the schoolroom.

Mr Cilliers said that Aids education could form part of a general course in "life skills" during which the child's rationale and decision making skills would be enhanced. The child could then decide for himself or herself whether "an hour of pleasure was worth the risk of Aids."

"We have made representations to the government about Aids education in schools and will hear from the authorities next week," he said.

Mr Cilliers said that education at an early age was very important in the light of the absence of a cure for Aids. To this end, there was a need for teacher training in this area.

"Telling or scaring the child will not help. The child must be taught how to think about Aids and decide what to do about it. Education departments in South Africa do not as yet have suitably trained people to coordinate such projects," Mr Cilliers said.

In the meantime, however, pamphlets on the deadly disease are to be distributed widely throughout South African schools.

"This is only a short term effort to educate children and it is up to teachers to take cognisance of this vital task and to take up the challenge together," Mr Cilliers said.

/9604

Sanlam Medical Officer Figures Cost of AIDS Treatment

54000132b Johannesburg *BUSINESS DAY in English*
2 May 88 p 7

[Article by Dianna Games]

[Text] If the pattern of AIDS in SA continued at its present rate, it could cost SA R13m to R94m by 1991, says Sanlam medical officer Dr J van der Merwe.

Speaking at the 3-day AIDS congress in Johannesburg, which ended yesterday, he said AIDS was the most expensive disease, on a par with coronary bypass surgery for coronary heart disease. It could eventually put an increased burden of up to R2,8bn on the current total health expenditure.

Costs included an average 168 days in hospital, which could amount to R20,000 per patient, plus a further R16,000 if the patient was treated with the only drug available, AZT, a very expensive and toxic drug, he said.

And D McKay of the Mercantile and General Reinsurance Company in Cape Town said the cost of AIDS also had serious implications for the life assurance industry. Unless the industry introduced controls, AIDS could make a "mockery of mortality assumptions." The industry faced the problem of reducing the future impact of

AIDS on insurance portfolios by effective selection and by revising pricing policies, McKay told the congress, which had more than 70 speakers from SA and abroad and several hundred delegates.

He said life assurance industries were not only entitled to underwrite or screen for AIDS but had an overriding obligation to do so to protect existing policy-holders and ensure their continued viability.

Insurers had to expect a worsening mortality and morbidity experience and the possibility of increasing premium rates for certain classes of policies had to be seriously considered.

Tim Bester of McCann advertising agency, awarded government's AIDS awareness campaign, said a survey conducted 2 months after the campaign's launch showed public awareness among blacks and whites had increased.

Bester said 88 percent of white respondents were aware of the campaign and 87 percent of blacks, with 100 percent of whites aware of AIDS and the number of blacks aware of it rising from 75 percent in a pre-launch survey to 96 percent.

The number of blacks who saw AIDS as the single greatest threat to the nation rose from 50 percent to 73 percent, but 35 percent of blacks did not know how to reduce the risk of being infected. The number of blacks who thought AIDS could be cured dropped from 41 percent to 21 percent.

SA Institute of Medical Research director Jack Metz said it was not a question of whether SA would see an AIDS epidemic in the local black population, but how extensive it would be.

It was suggested by several speakers that the migrant labour system should be examined by, for example, the Human Sciences Research Council, as it produced conditions conducive to the spread of AIDS.

Dr Olaf Martini of the Rand Mutual Hospital said no prostitutes who served the miners had yet been found positive for AIDS, but this would probably change. He called for prostitutes to be legalised and registered to enable the authorities to control the problem.

The Chamber of Mines' J Liebenberg said the chamber employed more than 500,000 workers, of whom more than 97 percent were migrants and more than 40 percent from high-risk neighbouring countries.

He said the chamber, after tests found hundreds of AIDS-infected workers, decided to allow the infected workers to remain at work and receive counseling, but not to employ any infected person in future.

Soon afterwards government introduced legislation which provided for repatriation, which reflected a shift in public opinion and forced the chamber executive to undergo a comprehensive policy review, he said.

C D Cilliers of Stellenbosch University said seven education departments, when asked, supported the idea of schools playing a role in AIDS awareness programmes, but only one said it was meeting this challenge. None of the departments felt their teachers were well enough trained at this stage.

/9604

11 AIDS Carriers in Bophuthatswana; 2 Dead
MB141936 Johannesburg SAPA in English
1924 GMT 14 Apr 88

[Text] Mmabatho April 14 SAPA—The Bophuthatswana Department of Health and Social Welfare in Mmabatho today revealed that 11 people have so far been confirmed as AIDS carriers in Bophuthatswana. At a national conference of health advisors, Dr N.N.D. Tshibangu said two of the 11 had already died. Nine of the reported cases are said to be in Ga-Rankuwa, while others are in the Mmabatho and Taung districts. The aim of today's conference was to share ideas on fighting the deadly disease.

UGANDA

NRA Officers Receive AIDS Education
54000136a Kampala NEW VISION in English
19 Apr 88 p 12

[Text] NRA medical officers have been urged to spread "the gospel according to AIDS" in all barracks, as the only way of preventing its spread. The advice was sounded by the Minister of State for Health, Lt Col Dr Ronald Batta, when closing a seminar for the officers on Friday.

He told the officers that since there was no cure for the disease as yet, it could only be controlled by telling people about its facts.

Reminding them that their preaching would not provide a cure, the minister noted that the preventive efforts would nevertheless replace fear with facts and hopelessness with hope. "Such efforts will prevent the active spread of AIDS," he said.

The minister also reminded the officers of the patients confidentiality, noting that tendencies to prejudice AIDS victims had to be discarded. He said such patients were also entitled to basic human rights and privacy and

warned that their integrity should not be discriminated against. "They should be entitled to equal opportunities in housing, employment and other social activities," he said.

Observing that the army fell in the youthful category, the minister said the special age distribution and exceptionally demanding circumstances to which they were subjected, required that an active programme be implemented to control transmission.

The seminar was organised by the AIDS Control Programme in conjunction with the Ministry of Defence.

/12232

AIDS Research Fund Launched
54000136b Kampala NEW VISION in English
19 Apr 88 p 12

[Article by Robinah Basalirwa]

[Text] The AIDS Treatment Research Fund (ATRF) has been launched. It will support, stimulate and enhance research in the treatment of AIDS in the country especially using herbs.

Launching the fund yesterday in Kampala Prime Minister Dr Samson Kisekka regretted that although the complete control of the disease required discipline of one man to one woman, people had not kept to this ideal. He donated 50,000/- to the fund.

He said the NRM government believes that the challenge posed by the disease must be handled and discussed openly. He appealed to Ugandan Scientists to join scientists the world over in looking for a cure.

But a cure for AIDS discovered elsewhere will be very expensive, he observed. It will therefore add to the country's already heavy dollar burden. "A drug discovered here would save us this problem," he added.

Kisekka said that although applied research may take a long time to treat AIDS it should not discourage anybody.

He urged that the herbal extracts already discovered by Ugandan doctors to bring about 4 months improvement in AIDS patients, must be pursued to the scientific and logical conclusion.

ATRF requires about 89.8/-million for their 5-year budget. The treasurer, Dr Yusuf Mpairwe said a vehicle will be required for the collection of herbs from Masaka. A piece of land would also be acquired for the growing herbs.

The chairman Rabbi Ezekiel Mulondo said that very few research programmes have been carried out in the country due to lack of funds.

/12232

HONG KONG

New AIDS Victim; Blood Contamination Figures Given

54400097b Hong Kong SOUTH CHINA MORNING
POST in English 27 Apr 88 pp 1, 2

[Article by Mary Ann Benitez]

[Excerpts] Another case of AIDS has been revealed in Hongkong—the latest being a Chinese male—bringing the total number of officially known cases to 13.

Health authorities said 10 patients had already died of the acquired immune deficiency syndrome (AIDS), which destroys the body's ability to resist disease.

The three surviving patients are all men and two are non-Chinese.

AIDS continues to be a "male disease" in Hongkong, as in most Western countries.

Except for a woman who died of AIDS last July, all the victims have been male, many of whom were homosexuals.

And out of 105 carriers of the AIDS virus, who have not developed symptoms of the disease, only two are women who became infected after receiving contaminated blood.

The latest patient, a Chinese male, had developed a full-blown case of the disease after being found to be an AIDS carrier in August, a medical spokesman said.

He is now undergoing treatment as an outpatient, after a brief hospital stay.

The two other AIDS patients are under Government care, with one of them in hospital. Both were earlier diagnosed to have developed AIDS.

Not one of the three patients are being treated with AZT or azidothymidine, the anti-AIDS drug that helps prolong survival.

The only AIDS patient to have received the drug in Hongkong developed severe side effects last month, and the treatment had to stop. His condition is now being monitored to see if he can resume the AZT treatment, which costs the Government from \$60,000 to \$80,000 a year per patient.

Last month's AIDS surveillance program also detected another male carrier of the virus, bringing to 105 the total number of people infected by the virus.

A total of 3,378 people were tested for AIDS last month.

The head of the AIDS counselling and education service, Dr Patrick Li Chung-ki, said even if many of the AIDS patients and carriers were homosexuals, AIDS remained a threat to the heterosexual population.

Of the 105 carriers, 52 are haemophiliacs, 44 are doctors' referrals and nine were patients of venereal disease clinics.

No bad blood was detected last month at the Hongkong Red Cross Blood Transfusion Service among a batch of 14,183 units.

Since August 1985, the Red Cross has tested 387,381 blood donors for the AIDS antibody, out of which six blood units have been found to be positive.

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Authorities Fear Measles Outbreak, Push Immunization

'Emergency' Campaign

54400097a Hong Kong SOUTH CHINA MORNING
POST in English 23 Apr 88 p 1

[Article by Mary Ann Benitez]

[Text] The Government has launched an emergency campaign to have babies and children vaccinated against measles as the territory faces its most serious outbreak since 1982.

By the middle of the month three children had died and 1,093 had been infected, with more than 200 being treated in the infectious ward of Princess Margaret Hospital.

In 1982, five deaths were recorded and 1,863 people were infected.

The Medical and Health Department yesterday urged parents to bring their young children forward for vaccination, which will be free for children from 6 months to 5 years old. Previously babies had to be a year old before they could receive free vaccinations.

None of the three children who had died—aged one, four and 13—had been vaccinated.

The department said the outbreak could have started from non-vaccinated individuals because about 20 percent of babies—or 20,000 babies each year—are not vaccinated despite the mass immunisation program begun in 1967.

This large pool of non-immunised children, whose numbers had grown over the years, could have been responsible for the outbreak, the Deputy Director of the Medical and Health Services, Dr Lee Shiu-hung, said.

The department first became concerned after recording 787 measles cases between January and March, more than four times the 1987 figures.

The special arrangements are being made in order to inoculate as many children as possible to prevent further spread of the disease, recognisable by red rashes on the body and face immediately after a bout of high fever.

Measles is a common childhood communicable disease, and normally occurs in early spring.

Free vaccines will be available today at Tang Shiu Kin Hospital, Yau Ma Tei Jockey Club Clinic, Kwun Tong Jockey Club Clinic, Lady Trench Polyclinic and Lek Yuen Health Centre for children aged between 6 months and 14 years.

Children who were vaccinated before they were one year old are advised to receive a booster.

The measles outbreak, which has been largely contained by the immunisation programs, comes on the heels of a hepatitis A outbreak which health authorities said were due mostly to people eating contaminated shellfish.

By 16 April, out of 1,680 viral hepatitis cases, 745 were confirmed hepatitis A.

Although the inoculation is not 100 percent effective, children who catch measles will only suffer a mild dose. Macau health authorities have also urged parents to have their children vaccinated.

Dispute Over Vaccination Levels

54400097a Hong Kong SOUTH CHINA MORNING POST in English 28 Apr 88 p 3

[Article by Mary Ann Benitez]

[Text] Doctors have disputed Government claims that only about 80 percent of babies are being vaccinated each year against measles.

The doctors said the vaccination program was more widely accepted than what Government figures showed, although some parents still refused to have their children vaccinated because of the belief that measles was a normal part of childhood.

A lecturer in community medicine at the University of Hongkong, Dr Linda Koo, said Government figures only included babies immunised at family health service clinics, and left out those babies immunised by private doctors who were not required to report the vaccinations.

She estimated that only from 5 to 7 percent of one-year-olds were not immunised each year. Another 8 to 10 percent of babies were likely to have been immunised at private clinics.

Dr Koo also said this year's outbreak was in line with the measles cycle in which an upsurge in cases occurred every 5 to 6 years.

Deputy Director of medical and Health Services, Dr Lee Shiu-hung, had said last week that about 80 percent of babies were immunised each year.

He said the large pool of children not vaccinated formed over the years could have been responsible for this year's outbreak, the first since 1982.

Up to yesterday, the number of affected children stood at 1,308. A total of 6,558 babies and children have been inoculated since Saturday, in response to a Government call for parents to bring their babies for free measles vaccine.

Dr Koo said the total number of babies vaccinated against measles had been declining since a high of 76,000 in 1983, following an outbreak in 1982.

But this was not significant, she said, as there was also a corresponding decrease in the number of newborns.

Figures released to the SOUTH CHINA MORNING POST showed that from a low of 83 percent of babies vaccinated in 1982, the figure shot up to about 93 percent over the next few years, only dipping slightly last year at 88 percent.

This means that during the past 5 years, an average of 71,000 babies were being immunised at Government clinics each year out of an average of 76,000 infants.

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VIETNAM

Spring Rice Crop Infestations

54004316 Hanoi KHOA HOC VA DOI SONG in Vietnamese 1 Apr 88 p 1

[Article by Duy Nghi, Vegetation Conservation Department, Ministry of Agriculture and Food Industry: "Need To Be Attentive to Harmful Insects and Diseases At the End of the 5th-Month and Spring Crop"]

[Text] For several 5th-month and spring crops recently, a number of damaging end-of-season insects and diseases has reached epidemic proportions, causing serious damage in the northern provinces, especially Nghe Tinh, Thanh Hoa, and the Bac Bo delta and midlands. The culprits are brown planthoppers (*Nilaparvata lugens*), rice stem borers, rice blast (*Piricularia oryzae*), and *Nigrospora oryzae*.

From the time the 5th-month and spring rice is heading until it is ripe there usually is a spate of brown planthoppers at the end of the season which causes serious damage. In some places the density at this time can be

from several thousands to tens of thousands of insects per square meter, burnt areas having the largest. In the recent winter-spring crop, the infested area at the high point was 300,000 to 400,000 hectares, 30 percent seriously infested. This year, despite extensive and prolonged cold, many places still have had a fairly high density of planthoppers since the very beginning of the season. Meanwhile, the proportion of the rice area having varieties seriously infested with brown planthoppers (No 2 spring rice, Nong Nghiep 8, V14, etc.) is also fairly widespread in many provinces and, as a result, the potential for brown planthoppers to develop into an epidemic continues to be unavoidable.

Rice blast has appeared in very many provinces in the Bac Bo delta and midlands and in Region 4 on 5th-month and spring rice transplanted before Tet, and is acute in some places. From before mid-March, prolonged murky, drizzly weather provided favorable conditions for the growth of the disease. We should be particularly mindful that infested varieties readily suffer serious damage if nitrogenous fertilizer is applied too late. The disease can cause serious damage at the time of heading on infested varieties in areas where the disease frequently encounters murky weather under 20 degrees Centigrade with light rain.

In years spring rice is transplanted late, second generation stem borers usually cause silver-head disease, up to 20 to 30 percent in some areas. This year late spring rice may head around the end of May. We therefore should pay attention to stem borers at the end of the season when hatching with rice that is heading.

Spring rice varieties are presently unable to resist *Nigrospora oryzae*. This disease has become and is becoming serious on rice and even corn and a number of other crops. *Nigrospora oryzae* will cause damage from the time rice is in boot and is most serious from the time of heading until ripe. The disease will grow vigorously in good fields and where nitrogenous fertilizer is applied too late.

In addition to the four harmful insects and diseases above, in each area we should pay particular attention to rice bugs (*Leptocoris acuta*) and green rice bugs (*Nezara viridula*) which will concentrate on destruction when the rice is heading and pollinating, making the percentage of inferior grains increase to the highest extent, the rice plantings heading too late.

To actively prevent and control the above dangerous types of harmful insects and diseases from causing damage at the end of the 5th-month and spring crop, places should devote attention to a number of things:

1. Strengthen the network forces protecting vegetation at the primary level, inspect and detect promptly, and estimate and forecast the culprits, period, density and damaged areas accurately.

2. Actively use simple, effective measures to limit harmful insects and diseases such as: bamboo weirs to catch stem borers, nets for rice mealy bugs before the rice heads, strip leaves suffering from *Nigrospora oryzae* before spraying insecticide. Use oil to eradicate brown planthoppers, and so on.

3. Spray all types of chemicals on pockets of harmful insects and diseases such as: Hinosan, Fujione, Fudazol, etc., to eradicate rice blast; Validacin to eradicate *Nigrospora oryzae*; Padan and Basudin to eradicate stem borers; Bassa, metaphos, Methyc Parathion, Dipterex Sumithion, Diazinon, Chlorofor, etc., to eradicate rice mealy bugs; Bassa and Mipcin to eradicate brown planthoppers.

Devote attention to eradicating brown planthoppers and rice mealy bugs when still young and in places with high density, eradicating stem borers when they are hatching and the rice is heading, etc.

4. Have rational and appropriate procedures and policies for stepping up the movement to prevent and control harmful insects and diseases, especially when it is necessary to mobilize large numbers of the masses to participate. Guide and use supplies economically and effectively. When insects and diseases are capable of becoming epidemics, levels and localities should form guidance committees to effectively develop and mobilize full participation.

Protecting production and preventing and controlling harmful insects and diseases at the end of this 5th-month and spring crop are the very urgent requirement aimed at ensuring success for the production crop and creating favorable conditions for subsequent crops.

ANTIGUA AND BARBUDA

10 Cases of AIDS Found, Half in Last 6 Months

Bridgetown BARBADOS ADVOCATE in English
27 Apr 88 p 2

[Excerpt] St John's, Antigua, Tuesday, (CANA)—Ten AIDS cases have so far been identified in Antigua and Barbuda—five of them between January and April this year—according to medical doctor, Prince Ramsay.

Ramsay made the disclosure to a group of students at the Antigua State College, where he called for less sexual promiscuity in order to prevent the spread of the deadly AIDS (Acquired Immune Deficiency Syndrome) virus in Antigua.

07310

BAHAMAS

Minister of Health Discusses Anti-AIDS Measures

54400095 Nassau *THE TRIBUNE in English*
25 Apr 88 p 1

[Text] Health Minister Dr Norman Gay urged all members of the public to give blood at the Blood bank to be tested for the AIDS virus.

He said they should be prepared to accept the results, whatever they might be.

Some persons who test positive for the virus may never fall victim to the disease, but others will—possibly within a 7-year period.

Dr Gay told a press conference Friday that 12 persons had died from AIDS in the first quarter of this year and 100 persons had tested positive for the virus. Over 400 persons in the Bahamas are known to have the virus, since testing began some 3 years ago, he said.

He said that in order to have the support of all Bahamians in the fight to avoid AIDS, "we must be able to decide where individual liberty stops and public health begins."

"A lot of our efforts must be in the direction of encouraging persons to develop healthy lifestyles," said Dr Gay when asked about the most effective way to fight AIDS, without the needed technological facilities.

He said a cure for AIDS is at least a decade away, "unless a miracle occurs," and because of the changing nature of the HIV virus, a cure might never be found. In the absence of modern technology, "prevention" through education is the most effective weapon, he said.

In many ways, AIDS can have an impact on the Bahamian economy. Dr Gay said everyone owes it to the country and themselves to be educated about the dangers of the disease.

He urged every member of the public to put health concerns at the top of their list of priorities.

Fifty-percent of the more than 400 persons who have tested positive with the disease in the Bahamas since testing began in August of 1985, may actually become victims within the next 7 years. The other 50 percent may never come down with AIDS, he said.

There is a strong possibility that up to 2,000 persons in the population will test positive for the AIDS virus by the end of the year, he said.

A \$100,000 grant to the Ministry of Health, originating from the World Health Organisation will be used to fuel the fight against AIDS in the Bahamas.

One possible use of the funds will be to better train persons to deal with those who have the virus. Dr Perry Gomez, chairman of the National Committee on AIDS, has been appointed to coordinate the project. Also present at Friday's conference were Dr O A Duah, immunologist at the Princess Margaret Hospital and head of haematology and the Blood Bank; Dr Kenneth Ofusa-Barko, and Acting Chief Medical Officer, Dr Carlos Mulraine.

Supervisor of the Blood Bank at PMH, Mrs Norma Allen, said that the question of confidentiality is always observed, whenever a person comes to be tested for the AIDS virus.

"We have always been very successful in our efforts in this regard. We are duty bound to be strictly confidential," she said.

Confidentiality is of such importance, "that the doctor who is running the test is unaware of who he is doing it for," she said.

"This question is given every consideration and every care."

Dr Barko reported that of the new 12 AIDS cases reported this year, five were women, the remainder men. The group was predominantly heterosexual.

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BARBADOS

Latest Figures Released on AIDS Mortality Rate
54400096 *Bridgetown BARBADOS ADVOCATE in English* 22 Apr 88 p 1

[Text] Five people have died from the dreaded Acquired Immune Deficiency Syndrome (AIDS) disease during the first 3 months of this year, local health officials have indicated.

As a result of the latest deaths during the first quarter of the year, AIDS deaths in Barbados now stand at 39.

The health officials said that of the five reported cases, one was a heterosexual female, one bisexual male, two homosexual male and a male who was classified as unknown since investigation of the case was not done or incomplete. Three of the AIDS deaths were people in the 25-29 age group, one between 30-34 and the other between 50-54.

It was also disclosed that five new cases of the disease were reported during the period under review.

During the 3 month period 878 blood samples were tested for HIV antibodies, 693 samples were collected from blood donors and three of these were positive. Of the other 185 samples which were collected for diagnostic purposes 18 were positive.

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GRENADA

AIDS Concerns Voiced; 11 Deaths Reported
54400099 *Port-of-Spain DAILY EXPRESS in English* 28 Apr 88 p 19

[Text] St George's, Wednesday (CANA)—Following official disclosure that 11 persons had so far died from AIDS here and another five were carriers of the virus, Grenada's leading expert on the deadly disease says the figures are cause for concern.

Dr Bert Brathwaite, commenting on a radio programme on Tuesday night, said Grenada's AIDS figures per population were high when compared with those of other countries.

"What is also quite concerning is that we have very clear evidence that the virus is into the heterosexual population. The more we see of the disease, the more this becomes apparent..." he said.

He added: "... What is happening is that this virus is still spreading in the community but it is taking a long time before it manifests.

07310

TRINIDAD AND TOBAGO

Caribbean Health Center Reports on AIDS Situation
54400094 *Kingston THE SUNDAY GLEANER in English* 27 Mar 88 p 1

[Text] Trinidad, 26 Mar (CANA)—Latest figures on regional trends show that the fatal Acquired Immune Deficiency Syndrome (AIDS) is growing in the under-30's age group, the Caribbean Epidemiology Centre (CAREC) here reported.

The latest trends on the killer disease's growth path in the region were reviewed by the 14th annual council session of CAREC which ended here on Friday.

"There are several trends...the virus seems to be affecting younger people...in the age group of 15 to 29," CAREC epidemiologist, Dr James Hospedales, told reporters at the end of the session.

"(There are) more women, of course, with increasing heterosexual transmission and more children as a result of transmission from mother to child," Hospedales said.

652 Cases

Answering questions on AIDS figures, Hospedales added that the upward trend continued. Some 652 cases were reported in the region to 31 December 1987.

At the last CAREC session on AIDS at the end of 1987, officials noted the growing trend of heterosexual transmission of the disease. The new trend emerging at the review of figures this week, showed that younger people were the new target group for rapid growth of cases.

"Whether or not that is attributable to promiscuity, I don't know," Hospedales said.

Most in Trinidad

CAREC officials, speaking at a news conference to end the one-week council session, were, however, unable to give exact figures on the growth rate among young people explaining that information on age, sex and risk factor groups was not as fully updated as basic figures.

Figures to December were largest in Trinidad and Tobago (231)—258 to the end of last month—the Bahamas (176), Bermuda (71), Barbados (52), Jamaica (50), and St Lucia (10).

Acting CAREC director, Dr David Bassett, also explained that the new trend of AIDS being passed on through heterosexual activity took the English, French and Spanish speaking Caribbean further away from American trends—where AIDS is mostly passed on

through homosexual and drug use activity—to the pattern in African states where heterosexual transmission was emerging as the main cause.

Funding a Problem

He said that the United States and Europe were only now beginning to show trends of heterosexual transmission.

CAREC is awaiting approval from the Trinidad and Tobago government, which owns the land CAREC is based on, to begin work on its U.S.\$30,000 (J\$165,000) educational and information unit.

The unit, to be named after the late CAREC director, Dr Peter Diggory, is to collate regional anti-AIDS education programmes for public dissemination.

Bassett, acting since Diggory died suddenly from a heart attack last month, said that funding—a topic again reviewed by the CAREC council—remained a problem.

He said, however, that the AIDS epidemic had appeared to help member countries better appreciate the role of CAREC.

The Trinidad and Tobago Cabinet on Thursday approved TT3.6 million dollars (one TT dollar 27.7 U.S. cents) to bring the twin-island republic up to date on its quota payment to CAREC, Health Minister, Dr Emmanuel Hosein told Cana Friday.

“We have...no sort of sanction we can impose. This would be unreasonable in a health field to deny services to the countries which are in most need,” Bassett said.

CAREC council members this week also discussed moving into research in other areas such as substance abuse, as suggested by member governments.

Officials said that the council had considered the proposals, which are still before member governments, and had warned that CAREC should not “overstretch” its facilities leaving it unable to deal with its first duty of communicable diseases.

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EGYPT

Policies Changed, Concerns Voiced Over AIDS in Alexandria

54004614 Cairo AL-SHA'B in Arabic 3 May 88 p 3

[Article by 'Amir 'Id]

[Excerpts] The Alexandria Health Affairs Directorate has acknowledged that four cases of AIDS have been found in the city, including a child in Bakus Quarter, a mother and her two children in Sidi Bishr Quarter, a young woman of 25 from Cleopatra Quarter, and a woman of 40 in al-Wardayan Quarter.

The strange and amazing surprise is that these cases are isolated in a safe place to protect the citizens and that these patients move freely, thus exposing whoever comes close to them to danger [as published]. The Alexandria Health Directorate has kept track of them only to check on the health of its own physicians.

Dr Mumtaz al-Sawi, a clinical pathology professor at Alexandria University's School of Medicine, has said that it has been discovered that AIDS can be transmitted in three ways: First, by way of blood transfusions or the transfusion of blood derivatives containing the AIDS virus; second, the use of hypodermics or other skin-penetrating instruments contaminated with the AIDS virus and, third, transmission from a pregnant woman to her baby during pregnancy or in the period immediately following delivery, as happened in the case of the mother and her newborn infant from Sidi Bishr Quarter. The fact is that the specialists in this area, especially blood-transfusion specialists, assert that more than the four abovementioned cases exist, and that we must keep track of these persons and quarantine them so that we may make sure that this new plague does not spread among the citizens.

French Injections Contaminated With AIDS

Regarding the AIDS-contaminated hypodermics discovered in Alexandria, Dr Mustafa 'Abbas, the deputy head of the Alexandria Preventive Health Affairs Directorate, has raised the issue of the vaccines and injections imported from France prior to 1985 and discussed the failure to subject these imports to careful examination. The reports have confirmed that patient (M.Dh.'I) used one of the imported injections, namely histaglobin injections. Based on lengthy discussions held by the local people's council and the recommendations made by this council, the directorate decided on 18 January 1988, according to Dr Mustafa 'Abbas, to withdraw all histaglobin injections from all the governorate's pharmacies and to return them to the importing company. On 21 January 1988, the Ministry of Health's Public Directorate of Pharmacies in Cairo notified us that it was possible to permit the use of batches 545 and 521 of the histaglobin injections because they had been proven to be fit for use and free of any contamination. The

appropriate authorities were notified. Meanwhile, NAMRO, an American naval organization [the Naval Medical Research Unit of the United States in Egypt], confirmed the presence of AIDS antibodies in the imported vials! On the same day, the Ministry of Health notified all health directorates in the republic of the utmost need to withdraw all the vials from the markets. Accordingly, Basyuni Ibrahim, a deputy from Alexandria, submitted on 16 February 1988 an urgent request for clarification to the minister of health. In his request, the deputy wondered about the confused decisions and the conflicting test results and asked: How could the results be negative in one place and positive in another? In whose interest is this confusion? How can the state import and distribute vials and vaccines containing human blood from countries where AIDS exists without carefully examining such imports to make sure that they are free of the virus?

Drugs and AIDS

Dr Muhammad Bakir, head of the communicable diseases prevention section of the Alexandria Health Affairs Directorate, has asserted that the disease can be transmitted through the use of drug hypodermics. Dr Bakir also discussed the possibility of preventing the spread of AIDS, even though no vaccine is available yet, by educating people to be abstinent and to observe the teachings of Islam, saying that this is capable of preventing infection. He also said that an important means of prevention is to restrict blood transfusion to essential cases. In such cases, the blood must be tested to make sure that it is free of the virus or of the antibodies. He further said that women infected with AIDS must avoid pregnancy because this poses danger to their lives and because infants born to infected mothers have a 50 percent chance of being infected with the disease.

Mosquitoes Transmit AIDS

Dr Mumtaz al-Sawi, a professor of clinical pathology at Alexandria University's School of Medicine, has asserted that the disease can be spread among the citizens by mosquitoes because they transmit blood from one individual to another. What is dangerous is that the virus undergoes mutations from time to time. Therefore, all these cases must be confined to one place so that the disease may not be spread.

Beware of Tourists

So what? So people can be protected with education disseminated by the media about how to avoid infection with the virus and how to avoid transmitting it to others.

The appropriate authorities must establish safe blood-transfusion and injection processes and must not import blood or its derivatives from any country where AIDS exists. Sailors must be thoroughly examined and the necessary precautions must be taken to insure that

tourists are free of AIDS. Finally, the government must realize that Egypt is targeted by its enemies, especially Israel. So beware and avoid suspicious people.

08494

Attempts To Stop Spread of Meningitis

*54004612c Cairo AL-AHRAM AL-DUWALI in Arabic
4 May 88 p 3*

[Article by Ahmad Nasr al-Din, Ahdaf al-Bandari, and Muwaffaq Abu-al-Nil]

[Text] Egypt is now subject to fierce attacks from the south and the west, threatening to destroy the health of Egyptians and everything green on the map.

In this case, the border guards are of a different kind. They do not deal with these three dangers by means of guns and gunpowder; they deal with all of them by means of prevention and treatment, before the dangers reach Egypt and threaten the health and food of Egyptians.

The three dangers are: 1) meningitis, which has already killed more than 1,000 citizens in the Sudan; 2) the gambiae mosquito, which carries the most dangerous kind of pernicious malaria, one previously unknown in Egypt; and 3) locusts coming from the south and west, threatening everything green on the map of Egypt.

What are the border guards now doing to save Egypt? How are they performing their national duty on Egypt's southern and western borders?

Border guards in Aswan are now dealing with a minute virus that travels from sick or carrier individuals by means of aerosol droplets from the mouth and causes the most dangerous of fevers, meningitis, which spreads epidemically in population concentrations.

In its first stages, the virus causes spinal meningitis. If the virus succeeds in reaching the membrane of the brain or the body's nervous system, it causes death. Latest statistics on the Sudanese meningitis epidemic indicate 1,059 deaths through the end of this March, after the epidemic spread in the capital, Khartoum, and in the surrounding cities.

Medical reports indicate that Aswan Governorate is completely clean and devoid of infection with the disease. Not a single case is to be found there, despite the fact that Aswan receives 1,000 Sudanese citizens each week, arriving on the steamers that operate between the High Dam and Halfa.

Major General Qadri 'Uthman, governor of Aswan, states that rigorous measures have been implemented to prevent the meningitis epidemic from spreading to Aswan. A strict system has been established at the port of the High Dam to subject all passengers coming from the

Sudan to full medical examination. Any Sudanese citizen not carrying a certificate of immunization against meningitis is forbidden to enter. A medical team from Aswan meets the Aswan-bound steamer before it crosses the Egyptian border and examines all passengers and crew on the steamer to make sure that all passengers have taken doses against the disease. Cases of the illness or suspicious cases appear within 48 hours. During the last 2 months, only three suspicious cases were found; they were quarantined and, following an observation period, were allowed to enter the country after they were found to be healthy.

6 Monkeys Put To Death

Major General Qadri 'Uthman adds: "I have issued an order prohibiting under any circumstances the entry of animals coming from the Sudan in the company of passengers. In fact, six monkeys that arrived in Aswan with passengers have been put to death." Dr Mahmud Yasin Shalabi, director of health in Aswan Governorate, says that a high-level medical mission will leave Aswan in May to set up a medical camp in Halfa with the agreement of the Sudanese Ministry of Health in order to assist Halfa medical authorities in the detection, treatment, and follow-up of cases until they are cured. The mission will include four fever specialists and a team of laboratory technicians. They will be accompanied by a steamer equipped as a preventative medical laboratory. It will contain the most modern medical equipment, serums, and drugs. The mission will continue work for 30 days. Furthermore, all workers at the port of the High Dam have been inoculated. A medical checkpoint has been established at the town of Daraw. All bedouins arriving with camel caravans from the desert are being subjected to medical examination.

In Cairo, the Ministry of Health has intensified its measures.

Dr Salih al-Haqq, deputy minister for endemic diseases, says that the number of cases in Egypt this year has not exceeded several hundred for the entire country. None of the schools in which a few cases appeared has been closed.

Concerning the ministry's measures to protect against the disease in Egyptian ports, Dr al-Haqq said that special medicines are being given to people arriving from infected areas or from areas in which the disease has a high rate of occurrence.

Inoculation of All Pilgrims

Dr Salah Madkur says that 1,750,000 doses have been provided to inoculate all the groups the ministry aims at inoculating yearly insofar as the contagion is prevalent among them. Priority is given to inoculating first-grade students in primary schools, all individuals who live in closed communities—university dormitories, asylums, prisons—central security soldiers, boarding schools, and

kindergartens. Whenever a case appears, ministry officials isolate it at the nearest fever hospital, where the diagnosis is confirmed and the patient given appropriate treatment.

People who have been in contact with the case, either at home or at the work place, are quarantined. They are given chemical prophylaxis and, if necessary, are inoculated.

The exposed individuals are then observed for 10 days to ascertain that the disease has not spread to them. This year, in view of the occurrence of many cases of this disease in the Sudan, the ministry has taken certain preventative measures involving people arriving from the Sudan, with the aim of preventing the spread of the contagion among them and its transmission to Egyptians who come in contact with them.

The ministry has decided to inoculate all pilgrims this year to protect them from this disease that spreads in gatherings of people. There are up to 20 million pilgrims, and most of them sleep in crowded places.

Cure Depends on Early Detection

Dr Ibrahim Farraj, director of fever hospitals, said that whenever the disease is detected early, a cure without complications is assured in over 90 percent of cases. Symptoms begin with severe headache and a sharp persistent rise in temperature, accompanied by vomiting and faintness. This is followed by rearward contraction of the neck. The body assumes a characteristic position, accompanied by the occurrence of convulsions, particularly in children.

The disease attacks all ages, especially children from 5 to 10 years old. It also affects adults who live in a poorly ventilated environment. Cases increase from November to March, then gradually decrease.

The disease increases in a 6-year cycle. Egypt is now in the early part of this cycle. As for the preparations being made by fever hospitals to treat cases, these hospitals (there are 90 of them in the country, with 8,000 beds, 800 resident physicians, and 500 specialists) have set aside special rooms to receive cases. Specialists have been instructed to be present at hospital reception rooms throughout the day.

2-Year Immunity Per Dose

Dr Ibrahim Farraj says that an annual study of all cases is made and the data are analyzed in order to determine the causes for the appearance of the disease and to warn citizens. Analyses are made to determine the antibiotics most effective against the disease. These vary from year to year, depending on the sensitivity of the prevalent microbe. These antibiotics are produced locally. The vaccine against the disease is imported. A single dose, costing 3 pounds, confers immunity for 2 years.

Cases this year have increased by between 5 and 10 percent over last year.

In general, as of early April the disease began to retreat at a rate of 5 per million.

Dr Raja' Hasan, head of the Egyptian Organization for Antibiotics and Vaccines, explained that doses of meningitis vaccine are provided every year for school children and policemen. 150,000 doses have been provided for pilgrims, in addition to the quantities imported each year for private use in doctor's clinics. Any citizen can come forward to receive an inoculation from the organization.

In a related development, the U.S. Food and Drug Administration approved locally-produced samples for inoculation. We are now in the process of equipping laboratories that will begin production within 2 years. Production will then satisfy our needs. We plan to export vaccine to the Arab countries, especially since Egypt is one of two African countries on which WHO depends to provide the rest of the African states with vaccines and serums.

Dr Salah Madkur, director of quarantine, said there are several kinds of epidemic meningitis throughout the world. They are especially prevalent in the countries of central Africa—the "African belt." The disease is seasonal. It is prevalent in these countries from late autumn until the coming of the summer rains. Most cases occur in this period. This does not prevent the disease from being found in other countries of the world, even advanced countries such as the United States. Usually, cases of the disease are numerous among children and school students, and in crowded, poorly ventilated places such as schoolrooms, military barracks, asylums, and closed-off places.

In Egypt, sporadic individual cases usually occur during the season of the disease's prevalence, which in Egypt begins in late November and lasts until the end of April.

12937

Border Authorities Take Steps Against Malaria
54004612b Cairo AL-AHRAM AL-DUWALI in Arabic
4 May 88 p 3

[Excerpts] On the border, a blockade is now underway against a dangerous disease that comes to us from North Africa by way of a small insect we know well and that is rarely absent from our houses—the mosquito. The mosquito meant here is the gambiae mosquito that causes the pernicious disease of malaria that threatens 200 million people living in 100 countries—nearly half the world's population.

International scientific reports confirm that there are 350 million cases of infection with the malaria parasite, including 150 million cases of infection with new strains of this dangerous parasite.

Eng Muhammad Ya'qub 'Ali, director of the Gambiae Control Administration in Aswan says, "After the building of the High Dam and the formation of Lake Nasir in Egypt and Lake Nubah in the Sudan, the huge surface of water became a suitable environment for the mosquito to breed. It therefore became necessary for the two governments to monitor water courses to ensure that mosquitos were not breeding, especially the gambiae mosquito that causes pernicious malaria.

"We began in 1971 by forming a joint monitoring team to conduct an epidemiological inspection and a survey of the malaria parasite within the common borders of Egypt and the Sudan. During its 1985 tour, the monitoring team succeeded in discovering the presence of specimens of *Anopheles gambiae* in all its stages within the borders of the Sudan in the area between 'Akasha and 'Abri, about 300 km—not a great distance—from Abu Sunbul. Also in 1985, nine specimens infected with pernicious malaria were discovered among the passengers on the steamer coming from the Sudan. The early discovery of the specimens led to their rapid control and elimination, and to disinfection of the border area between the two countries. The Egyptian government is funding a project to control gambiae with insecticides and control equipment, at an estimated yearly cost of about 165,000 pounds. At the beginning of January each year, monitoring trips begin in both countries to safeguard them against gambiae."

Dr Mustafa Husayn Harb, director of the Health Ministry's General Malaria Administration, says, "To strengthen the joint effort, the first central gambiae control unit has been opened in the tourist city of Abu Sunbul. It has been decided to establish a center for training in gambiae control at the eastern harbor of the High Dam. Egypt participates by supplying the Sudan with (Alabayt) insecticide, which kills mosquito larvae. It is added to water at a rate of 10 cubic cm of insecticide to 10 liters of water. It is nontoxic and is employed extensively in the Sudan's Northern Province, which uses Nile water for drinking. The drought and the decrease in water level in Lakes Nubah and Nasir from 185 to 150 meters have led to the appearance of new islands that are considered a suitable environment for the parasite to breed. Monitoring expeditions are concentrating on these islands, despite the difficulty of reaching them. In the context of long-term control operations under study, 22 February 1988 witnessed the opening of a modern international center in Abu Sunbul for the control of the gambiae mosquito. Also, a research ship has been built at a cost of 1 million pounds to insure eradication of the mosquito in Lake Nasir and the branches of the Nile extending into the Sudan."

Dr Salih al-Haqq, first deputy in the Health Ministry's Central Administration for Endemic Diseases, began by saying, "This center is considered the first brick in a forward defense line on the Sudanese border. From it, expeditions will be launched for preventative spraying with appropriate insecticides of everyone who crosses into Egypt from the Sudan. Inbound automobiles and Nile steamers, along with those who arrive by these means, will be sprayed four times per trip, to insure that infected cases do not slip into Egypt. This will take place at Aswan Airport, a post with buildings on Highway 40, the High Dam port, and the land road at Abu Sunbul."

Engineer Samihah Muhammad Muhanna, head of the entomology laboratory at the center's gambiae research unit, says that the gambiae mosquito is the primary vector of pernicious malaria and sleeping sickness. Without definitive treatment, an attack of the latter disease leads to death in 48 hours. Recently, however, this kind of treatment has become available at various fever hospitals in Egypt. Foremost among these hospitals are the ones in Aswan and Lower Egypt.

According to Dr Mahmud Yasin, director of public health in Aswan, the reason why the gambiae mosquito is so dangerous is that it stays close to homes and does not leave them. Furthermore, it is variable in habit and can adapt to living in any place, among various kinds of merchandise, and in steamer cabins.

Engineer Muhammad Ya'qub 'Ali, director of the Medical-Entomological Gambiae Research Administration, explained that effective measures to insure that the insect never enters Egypt are required. He said, "The most recent step to insure this became a reality only with the implementation of the protocol for cooperation between Egypt and the Sudan. This protocol can be considered one of the most successful practical agreements in this area at the international level. The Egyptian side supplies advanced scientific equipment, petroleum, and insecticides. The Sudanese side provides workers to be trained in the Egyptian center at Abu Sunbul and conducts control operations inside the Sudan."

Dr Salih al-Haqq continued, saying that other provisions of the protocol set forth the most critical geographical areas. The work area of the Egyptian-Sudanese project begins at Wadi Halfa in the Sudan and extends south to the Abu Fatimah area in the Northern Province of the Sudan, for a length of 500 km. The work area is divided into three zones of defense. The first, the red zone, is the one most at risk. It begins from the area of 'Akasha and extends 150 km to Wadi Halfa. The yellow zone extends from the 'Akasha area south to the Wawa area. The green zone extends from Wawa to the end of the project in the Abu Fatimah area. Control operations take place throughout these zones. The operations are at maximum in the yellow zone, which is now suffering from the epidemic. Dr Mustafa Husayn Harb, director of the Health Ministry's Malaria and Filaria Administration,

stresses the fact that there are only three or four cases of the disease in all of Egypt now. They have been discovered and have been treated with complete success.

If we look at implementation of the preventative program in Lake Nasir (width 10 km, length square 500 km), the new weapon to combat possible danger is the Egyptian research ship. It cost more than 1 million pounds to build and has been named "Uns al-Wujud" [the pleasure of existence]. It will cover a more than 750 km expanse of water and has been equipped with radio communication devices and a central operations room to coordinate the two research teams—Sudanese and Egyptian. It has a meeting room and a laboratory equipped with the most modern scientific apparatus for prevention and treatment. It also contains what resembles a floating hotel, with dining rooms, living quarters, and recreation rooms suitable for a crew of 26, including doctors, agricultural engineers, and technicians for the laboratories and monitoring operations between the High Dam port and Wadi Halfa. Small boats have been assigned to mosquito control operations in rough-water areas where the big boat cannot navigate. In this way the so-called red zone, the most endangered area, will be protected from any unexpected attack by swarms of destructive mosquitos.

Dr Salih al-Haqq said, "The joint Egyptian-Sudanese High Committee on Gambiae Control now meets yearly, alternating between Khartoum, Aswan, and Cairo. At the meeting, there is discussion of the most important gains and losses in relation to the monitoring trips. The two sides conduct take turns conducting these trips once every three months, with October and November of each year set aside for a joint monitoring trip. In addition, requirements for the next trip are discussed and its time is set. The length of the trip is about 750 km, 350 of them in the Sudan, in order to protect the green zone. The absence of any traces of the deadly mosquito from the latter area is considered a sure material guarantee that Egyptian territory is safe."

12937

Locust Invasion Begins

54004612a Cairo AL-AHRAM AL-DUWALI in Arabic
4 May 88 p 3

[Text] Three months ago—on 8 February, to be exact—the Agriculture Ministry's Central Pest-Control Administration declared an emergency after the discovery of the first of the African locust swarms advancing in the al-Shalatayn area on the Egypt-Sudan border.

Reports confirmed that it was a small swarm, no more than 40 square km in area, with the total weight of its individuals amounting to only 500 tons.

If this small swarm were able to cross the desert and reach the approximately 750,000 feddans of green agricultural land in Aswan Governorate, it would devour

them within a single week; for the red locust is notorious for its voraciousness, and a single locust can eat its own weight in vegetation in a day.

The border patrol therefore set out from a locust-control base located on the border of Aswan Governorate. They discovered that a wadi called Wadi Di'ib was the source of the swarm. The wadi lies within Sudanese territory, has an area of 300,000 feddans, and is planted every year with a crop of sorghum, relying on rain water. Locusts coming from the interior of the continent, from Eritrea and Somalia, found this wadi a fertile pasture. They settled there, turning the green stalks into straw in moments. The Egyptians combatting the locusts had to engage them on Sudanese territory to prevent them from continuing their journey across our borders. However, since there was no protocol with the Sudanese to regulate eradication activities, nothing could take place. The locust-control men stationed themselves on the border, trapping any individual locusts that came. Locusts, however, move in the form of dense swarms, and 14 of these swarms reached Egyptian territory.

Eng 'Abd-al-Mun'im al-Rawi, administrative director of the Aswan Locust-Control Base, asks that a protocol for locust-control cooperation with the fraternal Sudan be signed in order to assure freedom of movement in locust control and to help our Sudanese brothers through the 10 locust-control bases located in the Eastern Desert along the Red Sea coast and up to the tourist city of Abu Sunbul. These bases successfully eliminated 14 swarms of the locusts by dusting with a car-mounted motor and by hand scattering insecticide-saturated food (bran). We used 14 tons of insecticide powder and 70 tons of the bran.

Eng Samir Nasim, general director of locust control, states that while control operations have in fact ended, surveillance operations continue. There are patrols of control personnel, along with a unified communication network linking locust-control bases located all across the map of the republic: Aswan, the Suez Canal, Asyut, al-Isma'iliyah, al-'Arish, the New Valley, and Marsa Matruh.

Dr Yasin 'Uthman, Agriculture Ministry deputy for pest control, says that the government is showing great interest in locust control because of the catastrophic damage locusts cause to major crops, leading to economic losses that impact the national income and economy. A few days ago, Dr Yusuf Wali, the minister of agriculture, opened the remote sensing unit at the Center for Agricultural Research. The unit was constructed in cooperation with the development program of the United Nations and FAO. Among the activities of this new center, which is equipped with the most modern scientific instruments, is the prediction of locust swarms before they reach the Egyptian border.

Dr Yasin 'Uthman says that FAO reports confirm that the locust swarms that attacked Saudi Arabia are on their way to Egypt and are expected to arrive this May.

The same reports confirm the possibility that some locust swarms may arrive from North Africa, after having destroyed large agricultural areas in Tunisia. Preparations are now being made to confront the various contingencies. The locusts coming from North Africa may reach the New Valley or Abu Sunbul, depending on the nature and direction of the winds. There is a state of readiness to combat them.

12937

ISRAEL

Israeli Firm Debuts AIDS Rapid Detection Kit *54004506 Tel Aviv in Hebrew 19 May 88*

[Article by Amnon Atad]

[Text]The Organics Company of Yavneh intends to export a kit for the rapid diagnosis of AIDS this year, at a price of about 2 million dollars.

The AIDS kits are one item of hundreds on display at the Medics 88 exposition of medical equipment, now taking place for the sixth time, in Jerusalem.

One hundred and sixty companies are participating in the exposition this time, 58 of them are Israeli companies, and according to the organizers, no cancellations were registered on account of the events in the territories.

Five hundred foreign visitors are expected to attend the exposition; 200 of them are buyers, the remainder are doctors in different areas of specialization. The number of buyers, coming from 23 countries this year, is double the number at the previous exposition which took place a year and a half ago.

Data presented by the heads of the export institute indicate that in the past year, medical equipment exported from Israel amounted to \$260 million, \$50 million more than the previous year. The exports are mainly intended for the Common Market countries and some for the United States.

MOROCCO

Rice Growing Threatened by Disease, Pests *54004611a Rabat L'OPINION in French* *20 Apr 88 pp 5,6*

[By Mustapha Soulaymani: "Agronomic Research Must Take Action"]

[Text] Moroccan rice growing is going through difficult times. The entire sector is tormented simultaneously by insects, disease and weeds. The research in this area has not yet made any significant progress.

Rice is not very well established in Moroccan kitchens. According to studies on the international level, Morocco is the "lowest rice consumer" in the world (1 kilogram per year), while the Chinese consume 95 kilograms per year.

On the production level, insects, disease and weeds, the lag in agronomic research in this area, as well as the low rice consumption in Morocco; these three problems, among others, prompted the Sciences Department of Kenitra to organize the "study day on the constraints involved in Moroccan rice growing, and current methods of genetic improvement of rice." Participating in this symposium were researchers, engineers and representatives of the rice-growing sector. Discussion centered on the following topics:

—Rice growing in the the Gharb; the rice growing industry in Morocco.

—The incidence of weeds in the ricefields.

—The problem of panicum in the Gharb ricefields.

—Rice loss due to sparrows.

—Application of the recent methods for rice improvement.

—Improvement of rice varieties in Morocco.

—Use of "in vitro" cellule cultures for rice selection, etc.

Rice growing in Morocco is dangerously subject to insects and diseases. The agronomic research does not seem to be sufficiently advanced to combat these problems, which affect the entire production effort.

According to the specialists in this sector and the president of the Ghar Producers Union, rice growing in the kingdom is very fragile and receives very little training.

The main insects ravaging the ricefields are the following: *Sesamia*, *Shille Supresalise*, *Oulema Orizae*, *Pericurlarose Gibberila*, *Helminphos Prium* and *Puceros*.

The damage caused by these insects is considerable and can, if there is not a short-term solution, cause a severe blow to the Moroccan ricefields.

For example, according to the president of the United Union of Gharb Rice Growers, the damage caused by *Sesamia* is estimated at between 3 and 5 quintals per hectare, or almost 10 percent of the rice harvest. The producers are unanimous in face of this pest, and recognize their weakness in regard to an effective means to exterminate the ravaging insects.

Prevention and control of the harmful diseases and insects are virtually nonexistent in the production program of rice growers. It is urgent to include the problem

of insects and weeds in all the research programs in order to find out as soon as possible the risks of appearance of *Sesamia* and other insects. In order to achieve healthy ricefields, the producers have suggested the idea of establishing bodies for prevention and warning, and assignment to them of competent personnel. These prevention bodies could operate in close coordination with the agronomic research, and the latter should redouble efforts to rapidly achieve results. The producers also complain of the abundance of weeds in their ricefields. The most widespread is *Panicum*.

Another technique for clearing the ricefields is to grow a weeded crop such as corn or sugarbeet every 3 or 4 years. It also advised to expand the method of chemical spraying to destroy weeds.

The combat of insects and diseases can and should be carried out by selection of seeds every 3 or 4 years to avoid crossing, assure quality, and lower cost price of production. To do this, it is recommended that production of selected seed be developed. According to the professionals in this sector, their area should be 5 percent of the total ricefields area. It is also important to increase the number of varieties on the basis of selection of those that are the earliest and most resistant to diseases and insects, and the most productive in regard to quality.

During the last 8 years, the rice growing sector has experienced many difficulties. The drought of 1987 dealt a severe blow to this crop, particularly from 1982 to 1985, when the growing area was reduced to one-fifth, from 6,000 hectares in 1980, to 5,240 in 1981, 1,000 in 1982, 2,300 in 1983, and 1,700 in 1984 and 1985. Currently, the rice growing area has reached 8,000 hectares, with production approaching 336,000 quintals. The average yield per hectare is around 40 quintals.

The most commonly used variety is Triumph, on 80 percent of the area, with Rabii 446 and Bellar on the rest.

9920

Progress in Anti-Locust Campaign Reviewed

Cool Weather Stems Locust Movement

54004611b Rabat L'OPINION in French 5 Apr 88 p 1

[By Mustapha Soulayman: "Cold and Wind Calm the Locusts"]

[Excerpt] The wind blowing Northwest-Southeast during the past 24 hours has tended to stem the advance of the locusts.

Also, with the cold wave the insects stay on the ground, a propitious time to do large-scale treatment, as long as the visibility is good.

The weather during the past few days, marked by a sudden drop in temperatures, enabled treatment on 3 April alone of 23,092 hectares out of 36,055 infested. On 2 April 35,005 hectares were treated out of 63,950 infested.

The antilocus combat areas are still the same, Bouarta, Zagoura, Errachidia, Tata, Guelmine, Laayoune and Dakhla. The insect has lost some ground in these areas in face of continuing treatment and the combatting strategy developed, a strategy that has earned the admiration of the FAO specialists, who have urged the other countries threatened by the insect to follow Morocco's example of mobilization. In this connection, let us recall that since the beginning of the anti-locust combat campaign, which started in mid-October, and up to 3 April 1,056,105 hectares have been treated, of this total 851,052 hectares since 1 January 1988.

A rumor has been circulating, sometimes assuming exaggerated dimensions, giving the impression that there are attacks in the regions of Oujda and Agadir. After checking, it is learned that these provinces are far from the pest. However, all danger is not removed.

Except for the passage of some insignificant swarms at Oued Messa, no other attack has been reported in the other regions of Agadir Province.

Long-term Eradication Effort Required

54004611b Rabat L'OPINION in French 3 Apr 88 p 1]

[By Djamila Chekrouni: "The Combat Will Have To Continue for 4 or 5 Years"]

[Text] More than 2,000 persons mobilized, 350 vehicles equipped for the combat, 35 planes, and almost 5 million centimes spent daily for pesticides. That, in short, is the upshot of a situation that has put the entire country on a war footing to wipe out this plague of locust invasion.

According to official statistics that the interior minister gave us during a meeting with newsmen, the daily cost of each hectare treated is \$28, or about 200 dirhams, which brings the expenditure for the 993,000 hectares treated since the beginning of March to what seems an extraordinary cost: 12 billion centimes spent (9 billion coming from national funds and 3 billion from abroad).

Expenditure this year is estimated at more than 100 billion (with a planned spending of 30 billion already by the end of April), unfortunately requiring further huge efforts as well as aid assistance.

Indeed, the danger is far from eliminated and the situation has not yet been mastered, since, helped by the winds, large swarms continue to arrive.

However, one observation: the situation we are experiencing is the result of several factors, some of them independent of human will (high rainfall which promoted egg hatching, wind), but others that one could foresee and thus tackle.

In fact, the lack of information, in particular lack of coordination among the various Maghreb countries, lack of funds (the 1987 budget did not provide a "catastrophe fund" to cover unforeseen expenses in such cases), and absence of a strategy from the outset to combat the phenomenon, opened the door to a rapid growth in the "locust colony," which, according to the latest figures, is arriving in swarms 50 kilometers long and 3 to 5 kilometers wide, constituting a terrible menace to the entire citrus and grain region of Souss.

In addition, there is the dilemma posed by the use of certain pesticides, for example Dieldrin, and the difficulty of access to some regions.

According to locust campaign officials, the task of combatting this enemy of agriculture could continue for another 4 to 5 years if we want to be rid of them for the next 20 or 30 years.

Locust Eradication Statistics

54004611b Rabat L'OPINION in French 26 Mar 88 p 3

[Text] Situation This Week

Between the first 2 weeks in October 1987 and 24 March 1988, Morocco has treated an area of 726,427 hectares, and 524,774 of this since the beginning of January 1988.

For the day of 24 March, there were 53,136 hectares infested and 26,920 hectares were treated. These figures break down as follows (hectares):

Regions	Total	Infested	Treated
Bouarfa	22,157	15,367	6,790
Errachidia	2,665	929	1,736
Zagora	13,650	8,500	5,150
Tate	17,770	16,350	1,420
Guelmin	21,774	11,990	9,784
Laayoune	1,720	—	1,720
Dakhia	320	—	320
TOTAL	80,056	53,136	26,920

Locust Eradication Statistics as of 16 April

54004611b Casablanca MAROC SOIR in French
19 Apr 88 p 2

[Text] Since the beginning of the antilocust campaign until 16 April 1988, 1,325,117 hectares have been treated, 1,123,164 hectares of these since 1 January 1988.

For the day of 16 April 1988, out of 27,373 hectares infested, 2,876 were treated, breaking down as follows (hectares):

Regions	Flying	Larvae	Total Area
Bouarfa	200	—	200
Errachidia	1,120	—	1,120
Zagora	4,610	6,493	11,103
Guelmim	50	2,703	2,753
Tata	—	5,650	5,650
Laayoune	—	50	50
TOTAL	5,980	14,896	20,876

9920

TUNISIA

Eighty-six Test Positive for HIV Virus

54004610b Tunis LA PRESSE DE TUNISIE in French
29 Mar 88 p 8

[Text] On Saturday, at the information day organized by the Tunisian Union of Private Practice Doctors, the minister of health announced the official figures on persons infected with AIDS.

Nineteen persons were declared sick and 86 others seropositive. Most of the infected individuals had contacted the virus abroad.

In particular, two individuals aged 25 caught the disease during a visit abroad. In the opinion of some doctors, the identified cases are HB positive.

We should note that seropositivity is a forewarning of the disease. It does not show any clinical symptom. Only serodiagnostics enables the identification.

The doctors have focused their work on means of prevention capable of halting the spread of the disease. The ministry has reportedly decided to establish an information program, particularly in the youth milieu.

9920

National Vaccination Day Shows Promising Results

54004610a Tunis LA PRESSE DE TUNISIE in French
31 Mar 88 p 3

[Text] National Vaccination Day, organized on 27 May in all regions of the country, lived up to expectations.

On that day, 392,094 people presented themselves to the health organizations to request vaccination.

This number was 76 percent of the total turnout in 1987.

These results, in addition to being significant, prove that the consciousness-raising conducted on a large scale (particularly in the media) bore fruit. To be noted furthermore is the mobilization of more than 20,000 Public Health workers and the opening of 1,300 health centers throughout the country. Out of the 400,000 people who showed up, it is reported that 217,063 had one or several vaccinations.

National Vaccination Day 1988 was above all marked by a clear improvement in the proportion of antitetanus vaccination of women. These reached 49 percent of vaccinations this year, compared to 33 percent in 1987.

In some governorates, such as Kebili, vaccination of women represented 81 percent of vaccinations given, or 4,997 people compared to 527 in 1987.

In Kairouan, the number of people vaccinated during the day reached 22,975, or an increase of 103 percent. At Kasserine, the increase was even more marked, reaching 137 percent of that in 1987, with 20,632 people vaccinated.

Finally, one should mention the high motivation demonstrated by the health workers in all regions. They had to stay up very late to report the results the same day.

9920

Battle Under Way Against Nationwide Locust Infestation

Control Mechanisms Set Up

54004608 Tunis LE RENOUVEAU in French
22 Mar 88 p 7

[By Moncef Belkadi]

[Text] It was on Tuesday afternoon, 15 March, that the first locust swarms appeared in the Tamerza-Redeyef-Moulares frontier region. They came from the southern part of Algeria, or more precisely, from the El Oued and Tebessa districts.

As soon as they were alerted, the authorities immediately established an imposing mechanism for defense and treatment.

An emergency committee was established under the direction of Mr Amor Ben Romdhane, a secretary of state who is responsible to the minister of agricultural foodstuff production.

This committee, with its base in the theater of operations itself, in the seat of the governorate of Gafsa, includes, in addition to the regional and local authorities headed by Governor Mohamed Ben Rejeb, high-ranking Army and National Guard officers, the regional head of the forces of law and order, the regional agricultural commissioner and representatives of the SONAPROV and Tunisavia.

This veritable clarion call to combat is supported by vast human and technical resources, so that the battle against the Acrididae can be pursued simultaneously on the ground and in the air.

Gafsa and Tozeur Unharmed

It was at the 120-km marker en route to Gafsa that the first gusts of the sandy whirlwind appeared, and in El Fej, farther to the south, the landscape was tinted ochre, the symbol of drought and desolation.

Until then, no trace of the scourge had been noted, at least along the edges of the road. And even when one entered the city and visited its oasis and the neighboring fields, no notable damage was to be seen.

We were soon to learn the explanation, during the briefing session held Friday by the officials of the emergency committee, which is meeting almost continuously. The frightening insects had simply passed through and gone on eastward, towards Sened, Kebili and Rejim Maatoug.

Mezzouna Operation Successful

The happy result of Operation Mezzouna was 100 percent success, according to the colonel reporting to Secretary of State Ben Romdhane and all the others present on the operations his unit carried out. He added that Sened remains to be dealt with, while a helicopter was sent on a reconnaissance mission to Rejim Maatoug.

The representative of Tunisavia explained that his planes dispersed a number of hectoliters of insecticides over Khabna, near Mezzouna. Other campaigns along the mountain slopes near Sened are planned for tomorrow, Saturday.

Mr Ben Romdhane noted that no campaign can be effective unless it is preceded by accurate information continuously gathered. Also, all of the parties concerned must immediately transmit their observations to the operational headquarters for coordination.

The goal is to follow the slightest movement of the locusts in order to eliminate the scourge thanks to the use of major logistic resources and rigorous preventive measures.

The slogan is a demanding one—general mobilization around the clock, so as to carry this unrelenting struggle through to success, since other swarms have been reported in the direction of Menzel Bouzayane and Mekkassy. While teams on the ground comb the areas affected to complete the work done by the aerial units, marker beams are put in place in the zones where the planes are operating to facilitate their work, for efficiency depends on speed and the coordination of the whole complex of actions being pursued.

Planes are being dispatched to Borj-El-Amri as well as Remada to step up this campaign against the locusts. The National Vegetable Protection Company (SONA-PROV), for its part, has treated 7,100 hectares in the Gafsa region, toward Sfax, in 3 days, and in the Skhira strip, some 200 hectares have been treated. Also, two planes took off from Gafsa for a lightning operation.

In Kebili, 10,000 hectares were infested, and 2,000 have been treated, while dusters will treat the remaining 8,000 in Rejim-Maatoug Friday night. On a parallel basis, there will be an aerial operation, and troops in Land Rovers will undertake treatment in the areas characterized by rough terrain.

Mr Ben Romdhane explained that "According to the information obtained from Algeria, it was from a point 30 km from the frontier, in Negrine, to be precise, that the locusts swarmed toward Tamerza and Moulare. A team commanded by a captain is permanently stationed there to cut off the invasion route."

Mr Ben Romdhane went on to say that "For today, Friday, the situation is under control, and what remains is for us to pursue this campaign with full force and unrelentingly.

"We must continue our thrust, and throughout this period of mobilization, we will hold continuous meetings to keep abreast of the actions undertaken and planned in all the places where the locusts are reported. We will meet again tomorrow at dawn," he said at the conclusion of his address to the officials present.

For the secretary of state is personally participating in the operations. Mr Ben Romdhane, accompanied by Governor Ben Rejeb, pays daily visits to the field areas by plane and helicopter, in combat uniform, shoulder to shoulder with all the other participants. The two officials comb the region tirelessly, taking brief respites, as do the troops mobilized.

In this connection, the members of the emergency committee praised the bravery and the dedication of Lieutenant Guizani of the National Guard, who has done particularly outstanding work in the course of this vast campaign.

New Swarms in Metlaoui, Telepte and Ouled Mansour

According to the last report received yesterday afternoon from the first Gafsa representative, the situation deteriorated Sunday night, particularly in Oued S'Hili, in the Metlaoui region. Extremely dense swarms of insects arrived in the El Oued district at 2:10 pm, and at 4 pm they reached Nefta and Tozeur. In the middle of the night, in an absolutely new phenomenon, since these migrations are basically daytime occurrences, the locusts invaded the Metlaoui region. The planes and mobile groups on the ground immediately began a campaign against the scourge which continued day and night.

Other campaigns have been reported in the Belkhir district, in Ouled Mansour and in Telepte, in the governorate of Kasserine, where the swarms moved along the Sidi Boubaker corridor.

Herders Warned About Insecticides

Tunis LA PRESSE in French 19 Mar 88 p 4

[Text] In a communique made public yesterday, the Ministry of Agricultural Foodstuff Production informed the livestock breeders in the southern region about the insecticides being used in connection with the campaign against locusts. They are urgently advised to avoid taking their herds into the pastureland being treated until further orders are issued.

The herdsmen can contact the veterinarians in their localities for any supplementary information needed.

Maghreb Officials Meet

Tunis LA PRESSE in French 23 Mar 88 p 4

[Excerpts] Prime Minister Hedi Baccouche held a working session at the government palace in La Kasbah yesterday afternoon together with ministers and other officials from the Maghreb who are overseeing the campaigns to control locusts in their respective countries. These officials included Minister of Agriculture Lassad Ben Osman; Minister of Agricultural Foodstuff Production Mohamed Ghedira; Amor Ben Romdhane, secretary of state under the minister of agricultural foodstuff production; Moussa Ahmed Aboufrioua, secretary of the People's Committee for Farm Production in the Socialist People's Libyan Arab Jamahiriya; Dr Mohamed Sidna Ould Ba, the Mauritanian minister in charge of food safety; Nouredine Khedhra, secretary general of the Algerian Ministry of Agriculture; and Mohamed Hajjaj, secretary general of the Moroccan Ministry of Interior.

The representative of the FAO, as well as the Moroccan and Mauritanian ambassadors in Tunis, also attended this meeting. As the session began, the prime minister noted that President Zine El Abidine Ben Ali had ordered the convocation of this meeting of all of the officials in the countries in the Maghreb in charge of the campaign against locusts.

Prime Minister Hedi Baccouche noted that although the effects of the locust plague have not been as serious elsewhere as in Tunisia, all of the countries in the region nonetheless need to coordinate their efforts to deal with its future effects. He pointed out that Tunisia began coping with the threat of this plague with its own resources and within its own frontiers. Since it is known that this kind of plague recognizes no boundary, and that it is impossible to control it with a limited national campaign, Tunisia has undertaken to develop a joint campaign to combat the locust invasion.

The prime minister also expressed satisfaction at the fact that as of the first day, the countries in the region were able to draft a campaign of struggle. He emphasized that it is the duty of all of these countries to coordinate their efforts further, without regard to frontiers, so that this plan will have the desired efficiency.

Mr Baccouche praised the FAO, which is known in Tunisia for its multiple actions. He explained that international assistance is needed, because it is in the interests of the European countries to limit the area invaded by the locusts.

He commented that the recommendations made at the meeting are important and should be implemented, and the problem is not the responsibility of the technicians alone. It will also require a general mobilization in support of the plans for the individual nations and the Maghreb.

Mr Moussa Ahmed Abou Frioua praised Tunisia for organizing this meeting, and he expressed the hope that all of the parties involved will put an end to this scourge, which represents a threat to the countries of the region.

In conclusion, he voiced the hope that these meetings can be continued to cover other sectors in which coordinated action is needed.

Mr Lassad Ben Osman had provided the prime minister earlier with a report of the efforts made by the countries of the Maghreb in the campaign against the locusts, detailing the resources which will be utilized by each country to halt the locust invasion and to decimate the insects, with a view to prompt prevention of their advance and propagation.

Finally, the minister of agriculture presented the proposals and recommendations made by the participants in this meeting. In the course of his statement, he noted in particular the intensive exchange of information among the countries in the Maghreb region, their cooperation in the meteorological sector, and the adoption of the principle of bilateral cooperation for combating this plague in the frontier zones.

In addition, the participants recommended that all the countries in the Maghreb region strengthen their aerial resources and encourage direct cooperation among the airplane enterprises themselves.

The participants in the meeting also issued a special recommendation, urging priority international aid for the zones where the swarms of locusts are to be found, since they constitute a source of danger.

The participants agreed on the need to perfect a practical plan for the Maghreb. It will be drafted by the representatives of the countries involved, and it should be adopted during the next meeting, which is to be held in Algiers this coming June.

New Swarms Detected

Tunis LA PRESSE in French 23 Mar 88 p 4

[By Fatma Zaghouni: "Battle Against Locusts Launched in Kairouan"]

[Text] Numerous swarms of locusts were reported Monday evening, 21 March, in the Kairouan area, especially in Boussari, Jhima Nord (Bouhajla district), as well as in El Karma, Sidi Ali Ben Salem Abida, and Oued Marguellil (Ch'bika district).

Smaller swarms were also reported in the districts of Nasrallah, Haffouz, Chrarda, El Ala and Oueslatia, where they have damaged fruit trees in full leaf, and more particularly, almond and olive trees.

It has been learned, moreover, that new swarms coming from the low steppes in the Center-West invaded the area from Serja between El Hajeb on Tuesday, 22 March.

All of the departments involved have been put on permanent alert. An emergency committee headed by the governor has been established, and human and material resources have been made available for the campaign against the locusts. A number of mobile brigades have been assigned throughout the governorate to locate possible pockets of the insects.

In addition, since the very beginning, spraying with HCH, the only insecticide which will eliminate these ravaging insects, has been done, using mechanical and manual dusting apparatus.

Finally, the arrival of reinforcements, with major resources for controlling the damage and eliminating the swarms, is expected momentarily.

FAO Official Speaks

Tunis LA PRESSE in French 23 Mar 88 p 4

[Article by K.B.]

[Text] The locust phenomenon is spreading, and not in Tunisia alone. The threat is now to the entire Maghreb region, to the point that the Tunisian, Algerian and Mauritanian Departments of Agriculture and a top official in the Moroccan Ministry of Interior held a meeting to discuss the problem in Tunis yesterday. Mr Brader, the director of the FAO Emergency Center for the Campaign Against Acrididae, was present.

In the opinion of this noted expert, the situation in the region has become critical. "From October to March, the insects have multiplied on a major scale in the northern part of Mauritania and the southwestern part of Algeria. A humid climate which is particularly favorable to the migratory grasshopper contributed to this development, and the existence of exceptionally lush vegetation favored the emergence of adult locusts from the larval state. The invasion has now affected nearly 3 million

hectares in the Mauritania-Western Sahara-Algeria triangle alone." And it is from Algeria that the swarms of locusts invaded Morocco, and then Tunisia.

In our country, Mr Brader said, "Swarms have come in from the east (10 of them, we were told at the Ministry of Agricultural Foodstuff Production, with the explanation that a swarm can include more than 40 million locusts). We have already treated more than 30,000 hectares, and it appears that the swarms have been eliminated." We were told at this ministry, however, that the threat is not entirely past, and the campaign is continuing.

We were informed that the damage done has been quite limited, because the locusts have only invaded relatively arid regions without too much vegetation. However, we learned, the wind is carrying the swarms toward the regions with heavy vegetation, and the regions of Zaghouan, Mateur, Beja and Cap Bon are now threatened.

A Swarm 70 Kilometers Long

Moreover, since October, some swarms have been reported in Spain. One which was 70 km long was reported last Friday between Malta and Libya on the Mediterranean coast, giving the lie to the myth that locusts die when they reach the sea. "There may also be scattered swarms in southern Italy and Greece," Mr Brader explained. What can the FAO do about this plague? This international body merely serves as a link to ensure coordination between the countries suffering infestations and the donor nations. As a result, it was possible for Mauritania, which had run out of supplies, to obtain aid recently, in the form of 80,000 liters of pesticide, from Denmark and Sweden. Thus the aid of these countries is important if this scourge is to be eliminated before it seriously threatens Europe.

Situation in Gafsa Reported

Tunis LA PRESSE in French 31 Mar 88 p 9

[Article by F.M.]

[Text]Gafsa—The migratory locusts have arrived. Throughout the country, rumors are spreading, multiplying and reflecting fear.

But what do these voracious herbivores want of us, with the prevailing drought? Speculation runs rampant, as the popular imagination grows.

Often such an invasion is feared by those who are ignorant of the nature and the true dimensions of the danger it poses.

This agitated atmosphere thus reflects a fear of the unknown and of the scourge in general.

In the central and southern parts of Tunisia, the slightly anxious apprehension is taking on the dimensions of true alarm.

Historically, it is through this zone that the migratory locusts have threatened to invade the North.

The town of Gafsa, in particular, represents a veritable corridor where the valleys provide a warm refuge. The locusts deposit their eggs in its sandy lap, and then, in enormous swarms, continue their advance to the North, but with the certainty that they will return.

Even the least educated residents of the Center and the South are familiar with and fear this nostalgic trek.

The two scourges which have plagued this region for a long time now—the drought and the sirocco—have now been joined by the locust plague, thus forming a kind of bugbear known as "the triple S."

During the last locust invasion in 1958, it was necessary to turn to friendly countries for aid in equipment and personnel.

An American expert who was one of those who witnessed this operation and who has now returned to participate again in the same task made no secret of his pleased surprise on finding that "This time, the Tunisians are managing perfectly well in the fierce campaign against the locusts."

At the headquarters of the regional farm development office in Gafsa, which has become a kind of general headquarters for the treatment operations, representative Ibrahim Amri brought us up to date on the situation. He had before him a multitude of maps of the region and North Africa.

"The damage is really insignificant," he said. "However, it cannot be definitively assessed because of the fact that we will have spring reproduction here." It is believed that it will be necessary to deal with this scourge, in a first phase, until the month of June. Then a respite is expected, when the swarms return to the Sahara, before coming back to Tunisia in the month of October in search of green vegetation, during the first rains.

Originally, the locusts developed on the shores of the Red Sea. They then chose one of two directions—toward Afghanistan or Chad, proceeding then toward Mauritania and on to Algeria. This invasion Tunisia is now experiencing followed this second route. The locusts were drawn toward Mauritania by a tropical front.

10 March 1988

It was in Tataouine that the swarms attacked on 10 March. Earlier, they had infested a million hectares in Mauritania, and about the same area in Algeria. They followed two corridors—Redeyef and Oum Laarayes-Metlaoui. This was on 15 March.

On the morning of 16 March, the regional authorities, who had prepared for the attack, started out at 2 am to undertake ground treatment, using dusters and a suitable insecticide, HCH. At dawn, aerial equipment went to work.

Gafsa-Nord and Gafsa-Sud were invaded.

The few pockets, which were missed in this campaign and managed to survive for 2 days, were treated on 18 March.

On the following day, the swarms which escaped a treatment campaign in Kebili returned to the attack. On 19 March at 6:30 pm, an oasis near El Guettar was invaded. Work was then undertaken in the same way, with treatment on land beginning at 2 am the following day, while aerial equipment was launched toward dawn. In general, we learned in the district office, it is at night that the swarms land and settle quietly to ravage the leaves of trees and the various crops. As soon as the sun appears the next day, the crickets rouse themselves for further flight. Thus the teams involved in the campaign must act in timely fashion to prevent this destructive flight.

The same procedure has been used, with amazing care and vigilance, almost every day since 15 March.

Enormous Swarms

But it was on the night of 20 March that the most grandiose campaign seen to date was launched.

It was spectacular!

At 2:30 pm, a huge swarm was reported coming from the direction of Hezoua, Tozeur and Nefta and bound for Oued Sehili in the environs of Gafsa.

This forecast was systematically confirmed by the departments of the Army, the meteorological service and the teams established under the direction of the regional farm development office. A general mobilization began.

The specially equipped vehicles set off for the zone targeted by the swarms. As night fell, the stridulation of the locusts announced an attack of the kind most feared.

Then a deep silence settled over the valley, to be followed by a forceful land attack. The feasting swarms were surrounded and attacked at about 2 in the morning, first on the periphery of the area affected and then in its center. At 6:30 am, a further attack by air completed the operation.

Some small pockets were left in the environs. Small planes were used to clear them out.

Thanks to these maneuvers, the countless swarms which would have invaded Sfax and then filtered toward the North were eliminated. One of the members of the American aid committee ventured a calculation of the density of the locusts on the spot—he counted 1,500 per square meter. The representative said that the official figure given subsequently, which was 370 per square meter, was inaccurate because of a sandy wind which had already buried a number of dead insects. This makes the first figure more likely.

The attacks then became less frequent, and could easily be dealt with, until 27 March. A new attack had been expected, and it took place along the Kasserine road. Treatment ensued the next day, both on the ground and in the air.

This time there was no respite for the teams working tirelessly to complete the various strategic phases of prevention and to deal with the attacks with the precision and rigor required in this kind of operation.

The same day, another swarm moved toward the trap which had already been set by the teams of men and vehicles assigned to the area. The same procedure was launched, with the difference that in this instance, a single ground treatment sufficed to eliminate the swarm.

On 29 March, while we were preparing to pay a visit to the "battlefield," the weather forecast warned of winds favorable to a vast new attack. It was estimated that as of that date, about 25,000 hectares infested by locusts had been treated by aerial means and 8,000 hectares had been treated by ground forces in the Gafsa region alone.

In these areas, the locusts were to be seen lying on the arid and desolate ground, typical of the Sidi Boubaker plain, on the Gafsa-Feriana road.

Our guide pointed to a yellow insect, telling us that this was an adult locust of the Dimoumi species, ready for breeding. The others, which were brown or reddish, were of the Srihi species and just barely emerged from the larval state.

In addition, Tunisia has been aided in these operations by France, Spain, Germany and the United States.

The products used are powdered HCH, with a residual effect which may last 3 months, as well as the liquid products generally used in aerial treatments, in particular malathion, phinotrothion and D6.

Where the crops and pasturage are concerned, they may have certain dangerous effects.

Only two head of livestock have been reported lost in Gafsa. On the other hand, the consumption of locusts by the inhabitants of Tozeur, it is believed, has poisoned some individuals, who were hospitalized and treated.

Generally speaking, the damage, although it has not as yet been fully assessed, is believed to have been less than that which Tozeur has suffered thus far, which has not exceeded 5 percent.

Locusts Return to Kairouan

Tunis LA PRESSE in French 31 Mar 88 p 1

[Article by F.Z.]

[Text] Last week, favorable winds chased the locusts toward the South.

But then, beginning Tuesday, large numbers of ravaging Acrididae again invaded the district of Nasrallah, as well as the El Batan region, affecting an area of 1,500 hectares.

The citizens, regional officials and various farm services mobilized by 3 am to surround the scourge (using helicopters, sprayers, burning tires, vehicles, etc.), and it was possible to eliminate 60 percent of these insects. But some pockets still remain, and the danger has not been permanently eliminated, particularly since the southwest wind blowing at present is likely to bring in other swarms.

In any case, everyone is on the alert for any recurrence. With regard to damage, it was the almond, apricot and olive trees which were most seriously affected.

Sfax Situation Better

Tunis LA PRESSE in French 31 Mar 88 p 9

[Article by Rafik Ben Zina]

[Text] The commission established to combat the locust invasion in the governorate of Sfax is following the situation on a daily basis. It seems to have improved very definitely, thanks to speedy and energetic action by all the parties involved. The endangered area of 20,000 hectares in the governorates of Sfax and Mahdia has now been reduced to no more than about 2,150 hectares, which six planes (two Italian, one French and three Tunisian) and land vehicles are working to clear.

However, a new swarm of locusts coming directly from Tebessa was reported in Menzel Chaker yesterday.

Moreover, FAO experts and a representative of the EEC visited the governorate of Sfax on the weekend to inspect operations in the field.

We have said that the danger has been eliminated "for the time being" because the experts tell us that it is not impossible that the region will be attacked again in the coming days.

Swarms Moving North

Tunis LA PRESSE in French 2 Apr 88 pp 1, 6

[Article by K.B.]

[Text] The locust invasion is continuing, and may even last some weeks yet.

The insects were reported yesterday in Sousse, Kairouan, Nabeul and even Ben Arous, in the southern suburbs of Tunis. In view of the scope of the phenomenon, which has justified a state of alert, the FAO is even planning to authorize the use of more effective insecticides which have previously been illegal.

In any case, the mobilization is general. The Ministry of Agricultural Foodstuff Production and the meteorological service are working ceaselessly to combat this development effectively.

The invasion of Acrididae is far from over. The locusts which have come from the direction of Tebessa in Algerian territory and from Chott El Jerid, again through Algeria, are now, helped by the wind, moving into the governorates on the coast.

According to the most recent reports received from the meteorological service, the locusts have reached Kairouan, coming from the direction of Bargou and Ain Destou and Kesra. They were reported at 2 pm yesterday on the boundary between the governorates of Siliana and Kairouan.

They were also reported in Tunis, or, more precisely, in Ben Arous, but later the wind pushed them toward Nabeul, which they attacked, coming from Soliman. Yesterday they continued their advance toward the coast near Cap Bon and toward Menzel Temime.

Also yesterday, a serious locust invasion was reported in Sousse, with the swarms coming from the direction of Sebkheth Sidi El Heni. Large swarms are also reported in Bouficha, Enfidha and Sidi Bou Ali.

The locusts have not, moreover, left the South. They were reported yesterday in Medenine, where they were seen moving up toward Ben Gherdane via Sidi Makhoul Ghribet.

What is the reason for such an invasion? The Ministry of Agricultural Foodstuff Production explained that the invasion of Acrididae, which began in March, coincided with the reproductive season of these insects, which extends from March to June. "We will perhaps be faced with this problem for months yet," it was said at the ministry. The temperature in our country during these months (varying between 15 and 25 degrees) and the humidity are such that the time needed for the incubated egg to develop into an adult locust may be reduced from 65 to 10, or perhaps even fewer, days.

The FAO (the World Food Organization), in a report, has even contemplated authorizing the use of an insecticide which is indeed more effective, but has been illegal for a long time, in view of the extent of the danger threatening the entire Maghreb region.

Being aware of the danger, the government has established a committee to follow the problem daily.

In addition to the headquarters established in El Aouina to coordinate the operations in the campaign against this phenomenon, the meteorological service, which has offices in all the regions of the republic, has been put in charge of the task of locating and following the course of the swarms.

Beginning this Sunday, this headquarters and the meteorological service will work closely together to increase their efficiency.

The meteorological service, like the Ministry of Agricultural Foodstuff Production, nonetheless insists on the need for all of the people to cooperate in combating this scourge, either by reporting the passage or the presence of locusts to the meteorological service, or by spraying the insects with insecticides in the evening. Vigilance must be the general rule.

Greece Contributes Insecticides

Greece has just sent Tunisia a shipment of 13.5 tons of insecticides, 100 uniforms and 100 sprayers.

This aid comes as the Greek contribution to the campaign against migratory locusts being waged in Tunisia.

Invasion Continues, Reaches Ariana

Tunis LE TEMPS in French 5 Apr 88 p 3

[Text] (TAP)—According to information provided by the national commission supervising the campaign against locusts, the centers of infestation reported during the course of the day on 4 April 1988 are located in the governorates of Nabeul (400 hectares), Bizerte (200 hectares), Siliana (800 hectares), Jendouba (100 hectares), Ariana (4,000 hectares), and in particular, the district of Mornaguia. All of the zones affected have been treated to the extent of between 60 and 100 percent. This was achieved despite bad weather conditions (violent winds) and the rough nature of the terrain.

Apart from the land resources used in the campaign against this scourge, nine aircraft, including seven helicopters, were used in treating the affected zones.

It was learned from the commission that there have been no new locust infiltrations, and that the swarms which were reported in certain zones in the interior of the country were blown away by the violent winds.

It is also reported that 3 to 4 percent of the locusts are immature, and the breeding risk is thus minimized. The authorities point out that treatment of the affected zones should be carried out at first light, between 6 and 8:30 in the morning.

It is recommended, moreover, that citizens wash fruits and vegetables which have been sprayed, remove livestock from pasturage which has been treated, and mark affected zones by signals (including smoke) which will aid the aerial apparatus in treating the areas.

The products used in treatment, it is noted, are those used internationally, and they have the same effect as the products used for treating crops.

It was also learned that the chief of state is following the development of these operations very closely, staying in constant contact with the operations room or headquarters of the national commission for the campaign in order to ensure efficient operations in this campaign against locusts.

The last region to fall victim to the locust invasion is Ariana.

A large swarm coming from the Zaghuan region invaded an area of 4,000 hectares in the governorate of Ariana last Saturday afternoon.

The locust invasion affected an area of 2,000 hectares in the hills and 2,000 others on the plains.

The main regions invaded by the locusts were Mornaguia, Forna, Borj Amri, Menzel Habib, Ennefidha and Ain Essid, where there are extensive areas of trees, truck garden and other crops under cultivation.

The local officials were able to destroy almost all of the locusts (90 percent), thanks to the aid provided by the citizens and cooperatives and the coordination of all the effort put forth.

The regional authorities, who are expecting another major invasion in this region, have taken all the steps necessary to enable them to deal with the possible invasion by the migratory insects which, 3 weeks after their appearance in certain zones in the southwestern part of the country, have moved very rapidly toward the North.

A number of measures have been adopted to deal with the invasion.

In this connection, a National Vigilance Committee has been appointed and entrusted with the organization and daily direction of the combat operations in the affected zones. A supervisory committee headed by the prime minister was also appointed. It has been assigned the task of checking on the situation and deciding on the steps to be taken.

Ground equipment for combating the locusts has been reinforced with 11 airplanes and four helicopters.

These resources, which did not suffice for the struggle, were further strengthened with the arrival in recent days of four airplanes, five helicopters and quantities of insecticides provided by Greece, the United States, France, Spain, the GDR, Saudi Arabia, Japan and Belgium. Other spraying equipment and communications apparatus was supplied by some of these countries.

In their campaign against the locusts, the national authorities have had the assistance of three foreign teams dispatched by the United States, France and Italy.

5157

UNITED ARAB EMIRATES

Major Increase in Cases of Small-Pox and Meningitis

54004505 Dubayy GULF NEWS in English
24 Apr 88 p 3

[Excerpts] The incidence of small pox has been high in Al Ain where 1,060 cases were recorded last year, a report from the Preventive Medicine Department has said.

Compared to 1986, the number of small-pox cases recorded last year represented a 58 percent increase, it said.

The biggest rise was in the meningitis cases which were only four in 1986 but increased by 41 in 1987, the report pointed out.

After an outbreak of the disease, the medical authorities enforced widespread immunisation programmes and covered thousands of people.

/9604

Treatment of AIDS Patients in USSR
*54001019 Moscow MOSKOVSKAYA PRAVDA in
Russian 21 Feb 88 p 4*

[Article by I. Krasnopolskaya: "The Forecast Is Not Yet Happy"]

[Text] I went up to the second floor and found myself in an ordinary hospital department not notable for anything. I asked the two women in hospital gowns, whom I met at the entrance, how to get to the office of Vadim Valentinovich Pokrovskiy. They led me to the head of a sector of the Central Scientific Research Laboratory of AIDS Epidemiology and Prevention at the Central Scientific Research Institute of Epidemiology of the USSR Ministry of Health.

Vadim Valentinovich is young. AIDS is a very complex, new problem. Young people full of energy, not dominated by the burden of well-trodden approaches, were selected for the sector. At the sector I saw Oleg Geraldovich Yurin, assistant at the Department of Infectious Diseases of the Medical Stomatological Institute. He performed an allergy test on his hands. Now he sits and scratches them. This means that his immunity is not lowered. Those whose immunity is lowered have no reaction to the test. In every city and every republic, not to mention continents, the test works differently depending on the time of the year. Therefore, it is necessary to constantly compare patients' indicators with those of healthy people. Consequently, laboratory workers constantly perform such tests on themselves—they, workers, are the so-called control group. You will agree that not everyone will go for this.

Everyone now knows about AIDS. Here, at the sector, information on this plague of the 20th century can be obtained firsthand. Together with Vadim Valentinovich we go to the laboratory of enzyme immunoassay analysis. The striking black and red emblem of the World Health Organization—"AIDS: A Worldwide Effort Will Stop It"—is on the door. The laboratory itself does not externally differ in anything from an ordinary laboratory. Laboratory worker Yuriy Radionov willingly shows the results of regular research. A special instrument "transcribes" the results and then it is possible to determine where there is a suspicion of a virus and where there is none. In the sample, which Yuriy showed me, there were no apparent carriers of the AIDS virus, but there were three suspicious ones. The latter will "go" for additional examinations.

"Here is our future brain center," Vadim Valentinovich opens the door to the computer room, where all the information obtained not only in the sector, but also from the entire country, accumulates. A data bank is being stored. It gradually becomes the most important support in the fight against the disease.

I also wanted to get to where patients were lying. Having heard a great deal about some kind of superisolation of these people and nearly plague-resistant suits, in which personnel interacted with patients, I waited to see the "glass caps" at last.

"These people walking in the corridor in hospital clothes are infected with AIDS," Vadim Valentinovich says.

Pokrovskiy, noting my bewilderment, began to explain that no special isolation for carriers of the virus and even for patients was needed. The virus is transmitted neither through the air, nor through objects, nor through a handshake.

"In our country the initial cause of infection is somewhat distinctive. It differs from the foreign one—in all cases the disease is brought from abroad. As we say, in our country AIDS is of foreign origin."

"And how many such patients are there in our country now?"

"There are 42 Soviet and about 300 foreign carriers of the AIDS virus. Four patients are registered: one Soviet and three foreigners. They are undergoing an examination at our department."

"Will all virus carriers become sick?"

"This as yet is unknown. Another thing is known: Not all virus carriers are sick. The first signs of the disease appear 5 or 6 and sometimes even 20 years after infection. Therefore, it is impossible to be guided by some signs, especially as they in no way differ from the signs of other diseases; for example, pneumonia. Only a special examination can show whether an infection occurred or not and whether a disease is developing or not."

Vadim Valentinovich showed photographs of the first AIDS patient, who, as it was clarified, infected 14 people. He is 36 years old. He is now at home, receives the necessary treatment, and is disabled. He worked as a translator in Africa in 1982.

"How do you determine the time of discharge from the clinic?"

"When the complete examination ends. Treatment, both preventive and nonpreventive, can be given at home. Pills have to be taken."

"For how long must they be taken?"

"There are no radical drugs. Therefore, so long as there are deviations in laboratory indicators."

"But the translator is at home. Those who are not sick, but are virus carriers, are also at home. Is this not also fraught with the danger of a further spread of the disease?"

"Undoubtedly. Therefore, a signed statement that they are aware of the decree dated 25 August of last year of the USSR Supreme Soviet concerning criminal responsibility for infection with the AIDS virus is taken from them."

AIDS is a problem greatly exceeding the limits of pure medicine. Remember the WHO slogan—"AIDS: A Worldwide Effort Will Stop It." A worldwide effort! When everyone realizes the full danger of the illness. However, there are also other problems here.

A spacious ward for six people. I talked with its four inhabitants for a long time. One of them is from Moscow and the rest are new arrivals. It is not customary to inquire about family names and other questionnaire data here. The people are young. Quite young. One of them, not from Moscow, complains: it was discovered that he was a virus carrier and he had to leave his job. Another, also not from Moscow, shows a medical certificate indicating the diagnosis openly.

Later Vadim Valentinovich told me that two out of the four were not virus carriers at all—a mistake was made in the localities. Such mistakes are more than enough.

As yet there is no true standard of communication with these people. In the ward they told me that at their hospitals they saw only physicians' and nurses' eyes—everything else was "carefully covered." Therefore, Pokrovskiy usually shows a photograph taken together with AIDS patients to everyone.

Yes, the psychological weight is considerable. Those that work at the sector also have to be psychologists and educators able to relieve the "stress of AIDS."

"Is it necessary to examine everyone to the last man?"

"A general examination is not needed: A total of 30 to 40 percent of the population is absolutely not threatened. These are people who lead a respectable way of life. Nothing threatens them. If someone decides to test himself, he should go to a polyclinic and undergo a blood analysis. He will then come to us and we will give him an answer. If a person does not want to give his family name, he can come to us to the anonymous examination room."

Before leaving the laboratory, I ask another question:

"What is the forecast?"

"It is not yet happy. The number of virus carriers and, consequently, of possible patients is growing. As I already said, radical drugs are not yet available. Therefore, there is no basis for calm."

11439

AIDS Situation in Latvia

554001025 Riga SOVETSKAYA LATVIYA in Russian
6 Mar 88 p 3

[Interview with Chief Immunologist of the Latvian SSR Ministry of Health by correspondent I. Geyman: "AIDS: The Battle Continues"; date of interview not given; Passage in boldface as published]

[Text] Three scientists from our republic recently made an official visit to France: Deputy Director of the Microbiology Institute imeni Kirkhenshteyn V. Gribov, academic secretary R. Svirsk, and Chief Immunologist of the Ministry of Health A. Sochnev. Their visit was to the Louis Pasteur Institute which is widely known as the headquarters for the struggle against the plague of our century—AIDS. The manner in which French scientists are carrying out their offensive against acquired immune deficiency syndrome and what new developments there have been in this area in our own republic was the topic of an interview given by doctor of medical sciences A. Sochnev to a SOVETSKAYA LATVIYA correspondent.

[Question] In September of last year, Artur Margerovich, you and I had a detailed discussion about general problems of AIDS, its prevention, and what the AIDS situation was in Latvia at that time. But this disease has been spreading so rapidly that considerable changes could take place within a four to five month period. What new developments have taken place in the interim?

[Answer] I shall begin by saying that no news is also good news. That of course is a joke, but there is some truth there in that as has been the case previously, we have not found a single AIDS patient, and, just as was the case six months ago, only two persons have been identified as AIDS virus carriers. In order to get a better idea of how small a figure that is, I would cite the following numbers: in the USA there are 140 AIDS patients per one million inhabitants. There are 39 patients per million in France and Switzerland, and 24 per million in Denmark and the Netherlands. There is not a single case, I repeat, in our republic. Regarding virus carriers, there are from five to ten million in the world.

As we can see, an epidemic is in progress and is raging around us and, as realistic people, we understand that sooner or later we will be dealing headlong with AIDS and engaged in a struggle to save our people from that disease. That is why there has been no letup or interruption in our efforts to carry out measures for the prevention of this disease in our republic. AIDS is putting our preventive forces to the utmost test.

Today, we scientists of the whole world who are struggling against acquired immune deficiency syndrome, are placing great hopes on medical education and the dissemination of information regarding preventive measures. And there is good reason for this. For example, I noticed that after the publication of our discussion last

year more people starting coming to our anonymous laboratories seeking to have their blood checked. Once again as a reminder, that telephone number is 61-36-06.

Educational efforts in our republic are far from being developed at the level reached in many other countries, but we have recently started to become more active. Recommended methods for preventing AIDS have been submitted for publication and will be made in a sufficiently large circulation so that they will reach every practicing physician. The Medical Education Home has put out a reminder-pamphlet aimed at the population. In addition, there have been several television programs and one topical broadcast on the subject.

With respect to practical measures, at the end of last year we obtained additional instruments to compute positive AIDS responses. Earlier, all analyses were carried out at the Republic Center for Immunological Research where people were working many shifts. The laboratories have now been divided into republic regions and have provided with all the necessary equipment and diagnostic instrumentation. At present every batch of blood is checked out in two laboratories. Not a single transfusion is performed without that kind of analysis. All persons included in the so-called risk group undergo an obligatory blood examination in two other laboratories. I shall not enumerate those risk groups—they are well known. I shall only say that all pregnant women (in the last year alone there were about 40,000 such persons) must undergo obligatory blood examinations.

[Question] And now it would be interesting to know how this matter is being handled in France, particularly at the Pasteur Institute which is engaged in the very forefront of the battle against AIDS...

[Answer] The Institute is located in Paris not far from the Latin Quarter. The Institute comprises a complex of "aged" buildings. They are not tall buildings, but their fame goes well beyond France's borders. Surprisingly, the people work there in extremely cramped quarters. The laboratories are crowded and the corridors are clogged up.

We were able to get a rather detailed look at the work going on in the laboratory of Luc Montagnier. This is the scientist who first discovered the virus that causes acquired immune deficiency syndrome. His laboratory recently obtained a packet of new diagnostic aids which can be used for more effective determinations of AIDS-1 and AIDS-2. Scientists are striving to shorten the period between the time a person becomes infected by this disease and the time he is examined by specialists. Not so long ago one could not determine whether a person was ill or not even several weeks after contact. Now, thanks to the discoveries made in this laboratory, early diagnosis can now allow the differentiated treatment of various stages of the disease.

The French professor looks at the problem rather optimistically. He believes it is a long way before the battle against AIDS can be won, although this disease is less of a problem than cancer. "The etiological agent is known and it has been isolated so that know who the enemy is," maintained Montagnier, "and this will allow us to aim our sights at the enemy and find the weapon to conquer him."

Our visit with Dr. Sinsonetti was instructive. He is head of the prestigious frequently visited out-patient research laboratory. One can appreciate the feelings of his patients. The fame of the Pasteur Institute has laid the foundation for maintaining a high level of diagnostic procedures.

The number of patient visits here is greater than in our republic. The people here are not afraid of physicians and are not hindered by a psychological barrier. As is the case in our country, all donor blood is checked and all persons engaged in prostitution are subject to examination. French scientists believe that the uncontrolled risk group of drug addicts constitutes the greatest danger.

Professor Luc Montagnier believes that Europe, and particularly France, is three to five years behind the USA in the development of AIDS. The number of AIDS victims in the USA has not been diminishing, but in fact the epidemic is growing. Consequently, one should expect the biggest outbreak of AIDS to take place in Europe during the years 1990-91. We too should keep that date in mind and get ready for it.

As I already have said, in view of the absence of an effective drug against this disease, scientists attribute considerable significance to dissemination of information. In that connection a thorough study is being made of human psychology and social behavior. A special information dissemination group has been organized which will be able to have subtle effects on human reason and emotions. Professor Montagnier is publishing a special colorful and richly illustrated magazine which deals with AIDS prevention which discusses and explains all problems that are associated with this disease. A video film has been produced so that discussions about AIDS can be seen on the television screen by small audiences or in the family circle, and by children.

The Pasteur Institute has its own clinics which are financed both by the state and by private persons. The clinics have several AIDS departments which contain single bed wards. Those wards permanently house patients with pronounced immune deficiency. Other patients are kept here for supportive therapy or examination. The scientists of the Institute and clinics make biannual reports to the public about anything that is new regarding AIDS.

[Question] Let's now come back home from France, Artur Margerovich. How are we handling the education of medical personnel themselves?

[Answer] Of course, our efforts are on a much smaller scale. We are hindered by the excessive bureaucracy which has been created over the years. But, nevertheless, a permanent lecture course on AIDS has been introduced at the Advanced Physicians Training Division of the Riga Medical Institute, and we are starting to train physicians from the periphery. That is being done within the framework of propaganda directed toward strengthening our base in the republic's port cities and other cities. That which we have seen in France will be a great help to us in our efforts to activate the dissemination of information about AIDS among the medical profession.

6289

AIDS Testing Center in Odessa
54001024 Kiev PRAVDA UKRAINY in Russian
6 Mar 88 p 6

[Article by I. S. Fuchizhi: "Barrier to AIDS." First paragraph is PRAVDA UKRAINY introduction]

[Text] A "clinic of trust" has opened at No 38 Komsomolskiy Street in Odessa, where inhabitants of the city and the oblast and also those passing through may be tested for AIDS.

"One of the first laboratories for AIDS control in our country is operating successfully in Odessa," says I. S. Fuchizhi, chief epidemiologist of the Public Health Department of the Oblast Executive Committee. "Here compulsory testing is carried out on foreigners arriving in the USSR for extended periods of time, Soviet citizens who have been abroad for longer than a month or have contact with foreigners due to the nature of their work, and also individuals having amoral lifestyles. The seventeen infected individuals [virus carriers] detected among

foreign students who were studying at higher educational institutions [VUZes] in the city have been deported, and a female Soviet citizen who was infected by one of the students departed for the oblast of her residence following examination and treatment in Moscow."

"The danger of the spread of the disease exists. The 'clinic of trust' will help in detecting the disease in good time. In contrast to similar clinics in other cities, here examinations are conducted only on presentation of an identity card. This makes it possible, in the case of disease detection, to provide medical help in time and, what is no less important, to guarantee the safety of other people."

New Production Line for Disposable Needles
54001026 Moscow KOMSOMOLSKAYA PRAVDA in Russian
15 Mar 88 p 1

[Article by R. Arifdzhanov, correspondent: "Needle against AIDS"]

[Text] The Tyumen branch TsKPTB [not further identified] "Medoborudovaniye" has begun to manufacture a rotary line which will make it possible to obtain up to a thousand disposable needles per minute.

These needles are a reliable guarantee against secondary infections, first and foremost AIDS. There is still a catastrophic shortage of these needles. According to the most modest estimates, no less than 4 billion per year are required. The existing lines produce only 120 needles per minute.

The work on the first line will be completed by the end of the year and it will be installed at the Tyumen plant for medical equipment.

BELGIUM

AIDS Statistics, Risk Groups Pointed Out

54002470 Brussels *LA LIBRE BELGIQUE* in French
18 Mar 88 p 1

[Article by Eric de Bellefroid]

[Text] In terms of figures, the disease is progressing without surprises. And, it is more clearly affecting heterosexual "foreign nationals."

After last winter's enormous media offensive, marked by the official information campaign conducted by the Public Health Service Department, AIDS seemed to be on the decline in recent months. As far as the public was concerned, the press had probably reached a certain threshold of saturation. If one is to measure the dangers of too much information, in the sense that it would tend both to induce futile confusion and make the phenomenon commonplace while at the same time sow panic, it is obvious that the absence of information is not more effective.

The half-year results of December 1987, gathered by the Institute for Hygiene and Epidemiology, were issued Thursday by the Department of Public Health. At first sight, one would be tempted not to be too alarmed by them. In absolute figures, both for those who have the disease and those who have simply tested positive for the virus, no noticeable evolution in terms of the foreseeable course of the epidemic can be detected.

Four Infections a Day

On 31 December 1987, the number of individuals who had the disease—that is to say individuals who had reached the critical stage of the acquired immune deficiency syndrome—reported to the National Commission on AIDS was 311, of whom 172 had died. During the year 1987 80 new cases were reported.

On the other hand, the number of those who tested positive for the virus—that is to say people who had been infected by the virus but who did not have any symptoms—recorded by the referral centers was 2,846, or 343 new cases in 3 months and, thus, an infection rate of four people per day. But do the reported cases, as we have heard said, really represent only one-tenth of the virus carriers?

Young People Also

It would seem then that the figure of 12,000 healthy carriers would represent a good average among the various estimates quoted for Belgium. However, it should be noted that the first cases have been found of young people between 15 and 19 years old who tested positive for the virus.

The shattering revelations published early this month by the famous American sex specialists Masters and Johnson, who, based on a sample of 800 people, estimated that 3 million individuals in the United States had been contaminated, were challenged enough by the most respectable epidemiologists in the world to cause us to be extremely cautious.

Two Lessons

Two lessons can be drawn immediately from a single look at the epidemiological curves. The first one teaches us that a measurable increase in the number of new cases affects the "foreign nationals," while on the other hand the number among foreign nationals—primarily Africans—is clearly on the decline. The second one teaches us that the transmission of the virus solely through heterosexual relations represents 25 percent of the foreign nationals who have the disease, whereas this figure is only 5 percent for the surrounding countries. It is also among heterosexuals that the annual rate of increase is currently the highest.

Among infected foreign nationals who exposed themselves to no other risks than heterosexuality with multiple partners, two out of five reported contacts with Africa in their case history. In fact, this factor is even more widespread among those who have tested positive for the virus: according to the referral centers, 50 to 80 percent of the carriers reported a stay in Africa or sexual contact with people from there. It is not a question here of incriminating Africa, but of noting that our country is in close contact with the most infected countries on that continent, Zaire, Rwanda, and Burundi.

Let us leave it up to the Institute for Hygiene and Epidemiology to conclude that "the disease tends to propagate itself outside the groups identified as at risk at the beginning of the epidemic, primarily homosexuals and intra-venous drug users, to reach the heterosexuals."

8463

DENMARK

Aids Victims Infecting Others May Be Charged With Murder

54002473a Copenhagen *BERLINGSKE TIDENDE* in Danish
8 Apr 88 p 4

[Article by Carl Otto Brix]

[Text] If an AIDS carrier has sexual intercourse with a person who himself is not infected and is unaware that the other is infected, it can in principle be punishable as murder according to the penal code, Justice Minister Erik Ninn-Hansen (Conservative) said in a report to the Folketing's Justice Committee.

If it is not attempted murder but can be proved instead that the perpetrator intended to harm the other by infecting him or her with AIDS, the act can be covered by the sections of the penal code that deal with severe bodily harm or the attempt at such.

What in legal language is called criminal negligence may also apply. This can happen if a person who is presumed to be infected transmits the infection to a person who is not infected. Then the paragraph on inadvertent homicide can be applied.

Finally, it may be possible to apply the paragraph in the penal code that covers the reckless cause of immediate danger to life and limb of others.

The justice minister said in his report that the information campaign on AIDS has given everyone such an insight that they know that there is danger to the life and health of others if they are infected and have sexual intercourse.

"It is—to put it mildly—reckless if a person infected with AIDS who knows that he or she is infected has unprotected sexual intercourse," Ninn-Hansen said.

Such a case has not yet reached the courts, but the justice minister said in his report that the government can instigate proceedings.

09124

Condom Sales Actually Decline Despite AIDS Campaign

54002473b Copenhagen BERLINGSKE TIDENDE in Danish 3 Apr 88 p 13

[Article by Kaj Skaaning]

[Text] "We use condoms just as we use instant coffee—now and then in unusual situations," the director of Denmark's largest condom business said.

The massive educational campaign about the feared disease, AIDS, has not led to an increased sale of condoms. On the contrary. Sales show a slight falling tendency in comparison to sales over the past 10 years.

This surprising report comes from Christian Hjorth, who is the director of Denmark's largest condom business, World's Best, which sells over 50 percent of all the country's condoms.

Christian Hjorth told SAELGEREN, which is the professional journal for traveling salesmen, that the sales for 1987 barely reach the average for the past 10 years, and in exact figures sales show a slight decline. Nor did the first months of 1988, in which the AIDS campaign culminated, show an increase in condom sales.

Christian Hjorth told SAELGEREN that there may be several reasons why sales have not increased. One of the main ones in his opinion is that using condoms is always a strictly personal matter.

He thinks that the Danes use condoms just as they use instant coffee—now and then in unusual situations, and in Hjorth's opinion there have been fewer situations of this kind since AIDS has become well known.

On the other hand, the director thinks that an increase in the sales of condoms can be noted among very young people, whom the educational campaign in schools and the media have made more careful in their first sexual experiences.

09124

Tuberculosis Spreading in Christiania 'Free City' *54002473c Copenhagen BERLINGSKE TIDENDE in Danish 9 Apr 88 p 2*

[Text] The frequency [of tuberculosis] is much greater than in the rest of the country, but Hospital Director Jorgen Frederiksen has confidence in the offer of treatment the community has made to the Christianians.

The frequency of tuberculosis in Christiania is much greater than for the population as a whole. Thus between 10-20 cases of tuberculosis a year occur among the approximately 800 inhabitants of the free city, while in comparison, among the country's 5 million inhabitants between 220-250 cases of tuberculosis of the lungs are recorded.

The Socialist People's Party representative in Copenhagen's Town Council, Torben Andersen, calls this significant spreading of the disease in the free city a problem in which Christianians have found it difficult to find help, and he has asked the hospital director, Jorgen Frederiksen, to give an account of how he is helping the occupants to fight tuberculosis.

"In some cases contact with tuberculosis patients in Christiania is difficult," Frederiksen said, "and it must be recognized that the course of treatment can therefore be longer than usual."

The director said that the lung clinic at Bispebjerg Hospital is taking control of tuberculosis in Christiania. Twice a year an investigatory bus comes to the free city after a preliminary announcement. It stops at the so-called Health House, and here they try to motivate as many people as possible to be checked. In addition, all the children in the kindergarten are checked twice a year to see that they have all become tuberculin positive. They also try to get former patients to encourage the Christianians to come to be checked.

The nurse from the lung clinic comes regularly to Christiania to maintain contact with the known tuberculosis cases that are under treatment. During this time she also tries to make contact with persons who may have symptoms that indicate tuberculosis infection.

Jorgen Frederiksen regrets that the turnout for checkups is not so good as one might wish, but it is only an offer. There is no way to force people to be checked. Nevertheless, it is his impression that the great majority of the cases are indeed being treated properly, but some do not come for a checkup until the disease is at the breaking-out stage.

09124

Fence Erected on Border With FRG To Halt Cattle Disease

54002473d Copenhagen *BERLINGSKE TIDENDE* in Danish 31 Mar 88 p 3

[Article by Poul Bogh: "Border Closed"]

[Text] Fear of contagious cattle disease has now forced the minister of agriculture to fence Denmark in. Along the border between Denmark and the FRG fences are being erected in those areas where the border is not naturally closed by waterways and such.

In the agricultural department rumors have been heard from Schleswig that the department is about to establish a Danish equivalent to the Berlin wall.

"But it is definitely no such thing. It is a very ordinary danger fence at a height of 110 centimeters that is being put up. It is, therefore, not reminiscent of a Berlin wall or a Maginot Line," the head of the agriculture department, Morten Blom Andersen, said.

"The fence is being erected to keep loose German cattle out of Denmark and to assure the health of Danish cattle. It is particularly the cattle diseases IBR and hoof and mouth disease that we are protecting ourselves against," Andersen said.

The agriculture department has no way to take action against German farmers. Therefore the fence, which is not in conflict with the rules for the internal market in the EC.

09124

FINLAND

Funding Cut To Force Reduction in Number of AIDS Tests

54002485b Helsinki *HELSINGIN SANOMAT* in Finnish 14 Apr 88 p 19

[Text] The AIDS Support Center may have to reduce the administration of AIDS tests. The National Health Institute, which up to now has borne the expenses for the tests, stopped paying the salaries of the physicians doing the testing at the beginning of March. The reason was that the money ran out. Over a period of one and a half years about 2,800 tests have been administered at the AIDS Support Center or about one-half percent of all AIDS tests. In the tests 13 infected persons were found, which is about six percent of all infected persons. In comparison to tests administered elsewhere AIDS positive findings were ten times greater. The relatively large number of positive findings may be explained by the fact that tests at the support center are the only ones that can be administered in absolute anonymity. For example, in the health centers people are required to show their identification cards.

According to Outi Lithen, the managing director of the AIDS Support Center, the loss of about 200,000 markkas in physicians' salaries will make the testing process, which suffers from a shortage of money even at best, more difficult.

The AIDS Support Center requested 2.5 million markkas in support from the government for its four million markka budget. It received one million through the Finnish Slot Machine Association and half a million from Parliament's Christmas gift fund. When it did not receive the remaining million it stopped paying the salaries of physicians administering the AIDS tests.

According to Lithen the money shortage hinders not only the administration of the tests but also the support center's support and research activities and the dissemination of up-to-date information to the public.

In Finland to date about 500,000 persons in all have been tested of which 213 have been determined to be infected with AIDS. About half of the tests were administered to blood donors. In addition tests were administered in health centers, the armed forces and for pregnant women.

On the basis of test results the National Board of Health estimates that the total number of infected persons in Finland is about 500.

12893

Rabies Expert Views Situation in Country, Across USSR Border

54002485a Helsinki *HELSINGIN SANOMAT* in Finnish 6 May 88 p 13

[Text] "The most important thing is to know what happens on the other side of the border," emphasized Professor Lothar Schneider, who has studied rabies and vaccination of wild animals.

In Europe information about the disease moves well across borders, but information from the Soviet Union is, in Schneider's opinion, insufficient. According to Schneider, it would be useful to know how close rabies occurs to the eastern border of Finland.

"Nothing should be done in haste. It can be said with confidence that the virus is a wild animal virus," Schneider explains. It is spread by raccoons, in addition to foxes, once a year when the animals are young. The range of the animals is only 30-40 kilometers per year, and most of the animals are short-lived. An infected animal remains in its area. Hence the disease spreads slowly unless a dog, for example, is infected in an individual instance.

The Finnish Situation Is Manageable

In Schneider's opinion the situation in Finland is manageable. It should be determined whether the virus comes across the eastern border or whether individual cases, that occur over the course of time and are scattered deep in the interior of the country, are involved. He surmises that some animal might have travelled farther than usual.

The rabies virus encountered in Finland is not the European fox virus but the Arctic fox virus, Schneider says. He thinks it is possible that the Arctic fox has moved from the northern parts of the Soviet Union via a long inland route to the Finnish border and across it.

"There is a gap in the information," Schneider says. "The Central European fox virus and the Arctic fox virus must have a boundary somewhere. In Leningrad? In the Baltic countries?"

The State Veterinary Institute indicates that it is not known which type of virus is involved in the rabies cases encountered in the vicinity of Leningrad. Determining the type of virus is difficult and can only be done by reference laboratories affiliated with the WHO. Hence samples should be obtained from the Soviet Union and studied in one of those laboratories.

Immunization Can Do More Than Shooting

Previously wild animals were shot, since there was no other means to attempt to eradicate rabies, Schneider says. "You cannot shoot as many animals as you can vaccinate, however. Three-fourths can be immunized by vaccination."

Schneider considers shooting as an alternative measure only in small areas.

The rabies vaccine is given to the animals orally, concealed in a bait with a tempting odor. The animal thus receives antibodies for the rest of its life. According to a two-year study by the College of Veterinary Medicine raccoons require more antibodies than foxes to obtain protection.

According to Schneider it is best to vaccinate wild animals in the fall. It does not pay to vaccinate in April and May, when the animal population is multiplying and growing animals are moving around. The surviving young animals can be reached in the fall. Severe cold weather on the other hand may kill the odors by which the animals are attracted to the vaccine bait.

Vaccination should be carried out both in the rabies area and in a secondary zone. In West Germany vaccinations have been carried out by hunters, among others. Baits are spread thickly, Schneider says. Professor Schneider works at the Tuebingen Virus Research Institute, which also coordinates rabies vaccinations in Italy, Austria, Luxembourg and France. The institute is one of WHO's reference laboratories.

Schneider lectured at the State Veterinary Institute in Helsinki on Thursday.

This week no new rabies cases were found in Finland. The number of samples sent to the institute has declined somewhat.

12893

FRANCE

Fewer Samples of Donated Blood AIDS Positive in 1987

54002483 Paris *LE FIGARO* in French 2 May 88 p 15

[Text] Regular blood donors found to be infected are dropped from the lists, and "high-risk" new donors are turned away.

Since August of 1985, blood transfusion centers publish very regular reports of the thousands of AIDS tests they run daily.

The latest Weekly Epidemiological Bulletin has just published the results for 1987. They are encouraging, since the decline, which began in 1986, in the seropositivity rate of donated blood continued in 1987.

During the four quarters of 1987, 4,203,316 samples were tested: 1,278 of them were positive. This works out to a rate of 0.30 per thousand, compared to 0.41 in 1986, and 0.64 for the last 5 months of 1985, when AIDS testing in blood transfusion centers began.

These are overall figures, however; a more detailed analysis comparing regular and occasional donors reveals notable differences. The rate observed for the first group dropped from 0.23 per thousand during the first quarter of 1986, to less than 0.1 per thousand at the end of 1987.

"This drop can easily be explained," says Dr. Anne-Marie Courrouce of the Paris Blood Transfusion Center. "Once a regular blood donor is found to be seropositive, he or she is obviously dropped from the list of regular donors. We saw the same phenomenon—a reduction in seropositive donors—with hepatitis, as soon as reliable markers were available."

The rate among occasional donors—the many who came to give blood once or twice at most, to benefit from free testing—also shows a remarkable decline, dropping from 1.8 per thousand at the beginning of 1986, to 1.1 per thousand at the end of 1987. Does this mean the prevalence of AIDS among the general population has diminished?

Free Testing

Not at all, but there are several explanations for these changes. The first is the selection of donated blood. New donors are first subjected to an in-depth medical interview, which seeks to uncover potential homosexuality, IV drug addiction, time spent in Africa, a frenetic love life . . .

When the physician has the slightest doubt, he explains to the potential donor that, because of the donor's membership in a "high-risk" group, he prefers not to collect his blood.

Another, more hypothetical, explanation is that the public is better informed on the notion of infection risks, which would tend to reduce the number of potentially exposed blood donors.

Moreover, the percentage of new seropositive donors should drop again, now that several anonymous, free testing centers have been opened, notably in greater Paris, targeting the most exposed population groups.

The report of the first of these testing centers (1, rue de Jura, in Paris' 13th district) six months after it was opened on 23 September, 1987 by "World Physicians"

and Aides, showed an extremely high prevalence of seropositivity: of 1,157 tests run, 100 were seropositive, or an 8.6 percent rate. But the center recruits from a rather special group: over half the people tested were homosexual or bisexual (men), and a quarter were former drug addicts.

Obviously, the greater Paris region and the entire south of France are the regions with the highest seropositivity rates in blood samples studied by transfusion centers.

In the greater Paris region, the prevalence is 0.58, and in Provence-Cote d'Azur 0.47, compared to 0.04 in Lower Normandy.

Overall, however, the efforts of the centers have considerably reduced the risk of infection through blood transfusion.

09825

GREECE

Epidemic Proportions AIDS Spread Seen Unlikely
54002467 Athens I KATHIMERINI in Greek
27-28 Mar 88 p 14

[Editorial by University of Athens Professor of Hygiene and Epidemiology Dimitris Trihopoulos]

[Excerpts] Journalistic interest, and the public's consequent interest, in AIDS are usually activated when there are new biological data about the causative factor or the disease.

Based on the present scientific coordinates of the problem, certain indications can be made concerning our country and the existing, or desirable, focalizations of our health policy.

1. Is an explosive spread of AIDS likely in the heterosexual population in Greece?

Probably not. Contrary to what was believed by most special researchers in the international scientific area a year ago, there are today converging indications that, among heterosexuals in the developed countries of Europe, America and Asia, the AIDS epidemic will be relatively mild and will not take explosive dimensions. Summing up the epidemiologic data, the distinguished London *ECONOMIST* recently came to the conclusion that "the worst fears about a (catastrophic) AIDS epidemic do not seem to be materializing."

2. Based on the above determination, is it acceptable to relax the measures which have been taken or have been proposed?

No. Even in our country, the danger for homosexuals and intravenous drug users is significant, while for heterosexuals the danger is existent, although very small.

More specifically, for Greek heterosexuals, the likelihood of having intercourse with an AIDS carrier who is not an intravenous drug user is less than 1 in 15,000 and the probability of AIDS being transmitted after a sexual contact with a carrier is less than 1 percent in females and even less in men. Although the combination of the above chances gives, as a rule, a very small probability, it should not be overlooked that these data are by their nature average values with significant circumstantial deviations and that the consequences of infection may be catastrophic from many viewpoints.

3. Have Greeks been inadequately informed about AIDS?

Probably not. There is no doubt that there have been mistakes (such as the focalization on the danger) but, as a whole, both the state agencies and the press have presented the medical and social dimensions of the issue effectively and, as a rule, with soberness. The gaps which have been ascertained in the Greek public's information are reflective of more general problems in the organization of health education in our country which filter in and hamper all the efforts for a many-sided and effective health education in this sector.

4. How is the low frequency of AIDS in our country compared to North American and Western European epidemiologic prototypes explained?

Apparently there are many reasons but they are not all known. Although intravenous drug use is increasing progressively in Greece, it is not so frequent as in certain other countries and the accessibility of syringes and needles for drug use may contribute to slowing down the spread of AIDS. Furthermore, it is possible that both the distribution and behavior of homosexuals in our country is different from those which have been verified in the United States and certain other countries (for example, an extensive overlapping of homosexuality and intravenous drug use does not appear to exist in our country). It is, moreover, possible that the way, and rate at which, the AIDS virus is being brought into Greece are different from that in other countries.

5. How many AIDS carriers are there today in Greece?

Estimates fluctuate between 3,000 to 8,000. Since the number of AIDS cases thus far in Greece has been approximately 100 and the carriers may number from 100 times more than the cases (at the start of the epidemic) to 10 times more (when the epidemic has made much headway), the most probable number today, if the phase of the epidemic and certain other factors are taken into consideration, is about 4,000 carriers.

6. What is the priority in the preventive strategy for confronting AIDS in our country?

Reorienting the educational campaigns so they will be focused on high-risk groups. Today, those who are completely enlightened about the epidemiologic parameters of AIDS are the population groups which have the least chance of contributing to spreading the virus (for example, men and women of a relatively advanced age who are able to constantly follow the oral, television or journalistic presentations of the issue), while, on the other hand, there are significant gaps in the education of population groups which may contribute in a crucial way to spreading the epidemic. These data emerge from research which was done by the University of Athens' Hygiene and Epidemiology Laboratory (with coordinating responsibility of the collaborating E. Petridou Laboratory) and from the fact that, despite the systematic educational effort on multiple levels by many agencies, the consumption of condoms in our country has increased minimally in the last two years (as emerges from data collected by an assistant at the Hygiene and Epidemiology Laboratory, Kh. Koutis).

9247

TURKEY

9-Year-Old AIDS Victim Diagnosed

54002477 *Istanbul HURRIYET in Turkish*
18 Mar 88 p 16

[Article by Selma Tukel: "Little Belma Has AIDS"]

[Excerpts] Nine-year-old Belma Dangul has fallen into the clutches of the horrible disease of the century, AIDS, and must spend her numbered days in a special dimly-lit room at the Social Insurance Organization Okmeydani Hospital.

A fourth-grade student, Belma is Turkey's youngest AIDS patient. She neither knows what disease she has nor understands its terrible consequences.

She is 13 kilograms below weight for her age and growing thinner every day. She has not been out of bed for 3 months. Dr Munire Cam, chief of the Pediatric Clinic at the hospital, explained as follows the development that brings little Belma quickly closer to the sad, painful end:

"Little Belma suffers from Mediterranean anemia, called thalassemia, and it was thought that she had contracted tuberculosis also. The Istanbul Medical Faculty Pediatrics Clinic decided on bed treatment for the patient whose illness they diagnosed as tuberculosis, because she was having diarrhea. They sent Belma, who is covered by insurance, to us on 2 March 1988 because repair work was being done there. We immediately put her to bed. She was suffering from diarrhea and also had a fungus infection in her mouth. All of these symptoms reminded us clinically of AIDS. We ran all the tests, using the Eliza test for AIDS in our own laboratory. We had our test confirmed at the AIDS Center of the Microbiology

Institute of the Istanbul Medical Faculty. A Western Blot test was also conducted there. It was definitely AIDS. We then informed the Istanbul Provincial Health Directorate."

Dr Munire Cam drew attention to "the patient's having been infected by the blood she was given" and said:

"Belma has been receiving blood transfusions since she was 2 years old. She acquired the AIDS virus from this

blood. All of the blood at the Capa Red Crescent Blood Center, where the blood was obtained, has been subjected to the Eliza test before being given in transfusions for more than a year. So it seems that Belma acquired the AIDS virus before implementation of this test was begun."

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